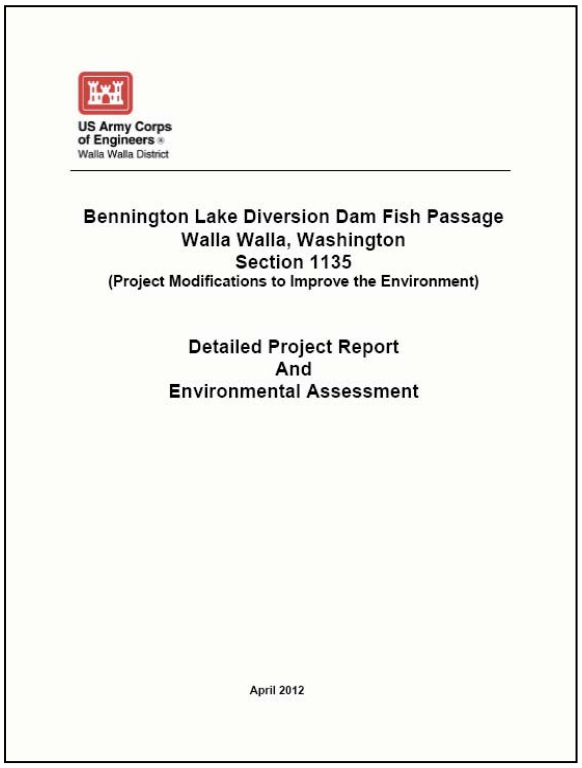
Agency Technical Review Report

Subject: Review report for the Bennington Lake Diversion Dam Fish Passage, Walla Walla, Washington, Section 1135, (Project Modifications to Improve the Environment), Detailed Project Report and Environmental Assessment, April 2012.


US Army Corps of Engineers
Walla Walla District

Bennington Lake Diversion Dam Fish Passage
Walla Walla, Washington
Section 1135
(Project Modifications to Improve the Environment)

Detailed Project Report
And
Environmental Assessment

April 2012

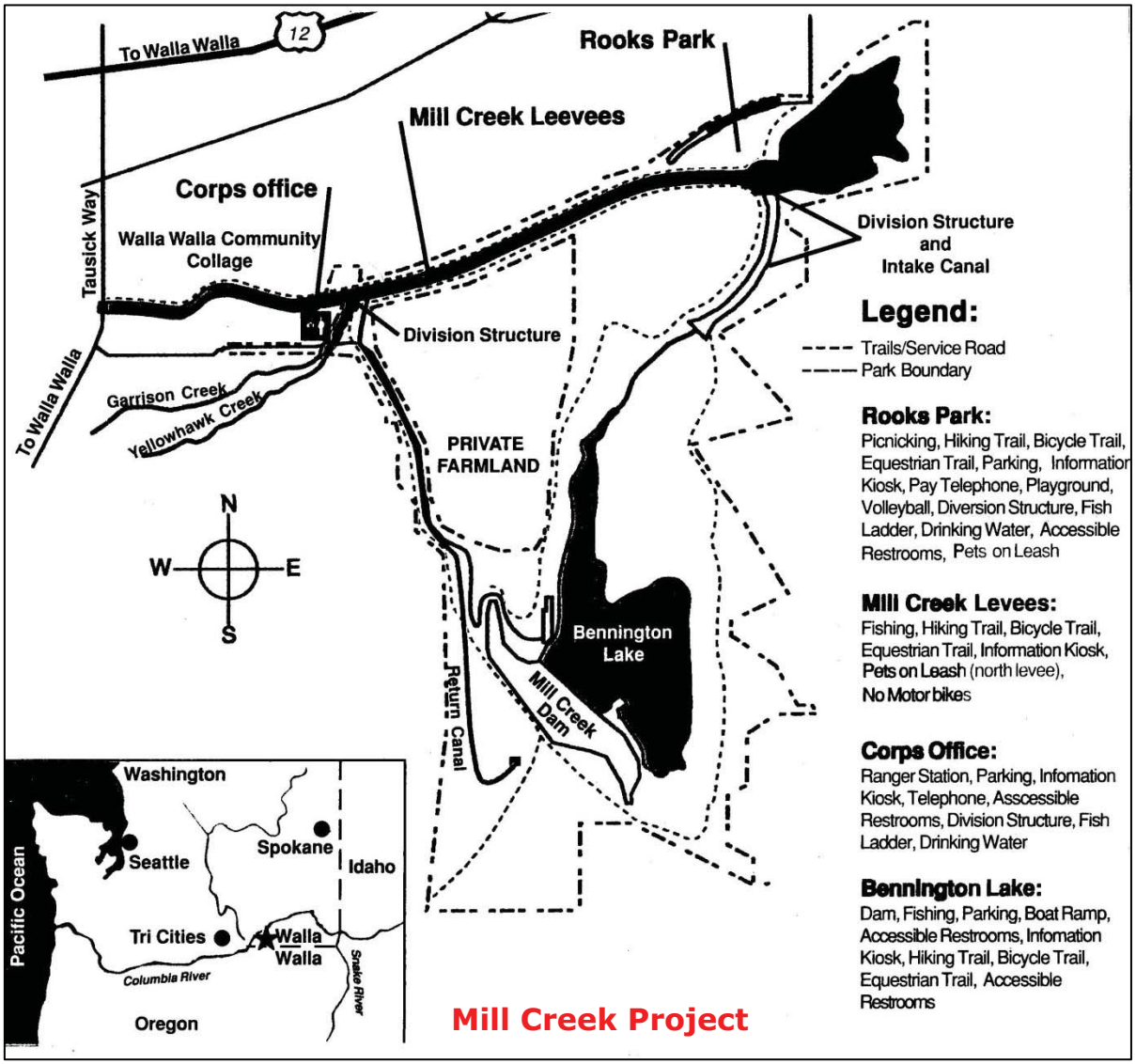
1. **Scope and Purpose of Review**. The purpose of this review report is to document one phase of agency technical review (ATR) for the subject detailed project report (DPR) – the alternative formulation briefing (AFB) documentation. The reviews were conducted for the Los Angeles District. The primary point of contact for the District was Stan Heller PE, PMP, Project Manager, CENWW. The ATR team (ATRT) was lead by Marc L. Masnor, P.E., CESWT. The Ecosystem Restoration Planning Center of Expertise was the review management office for managing this ATR.

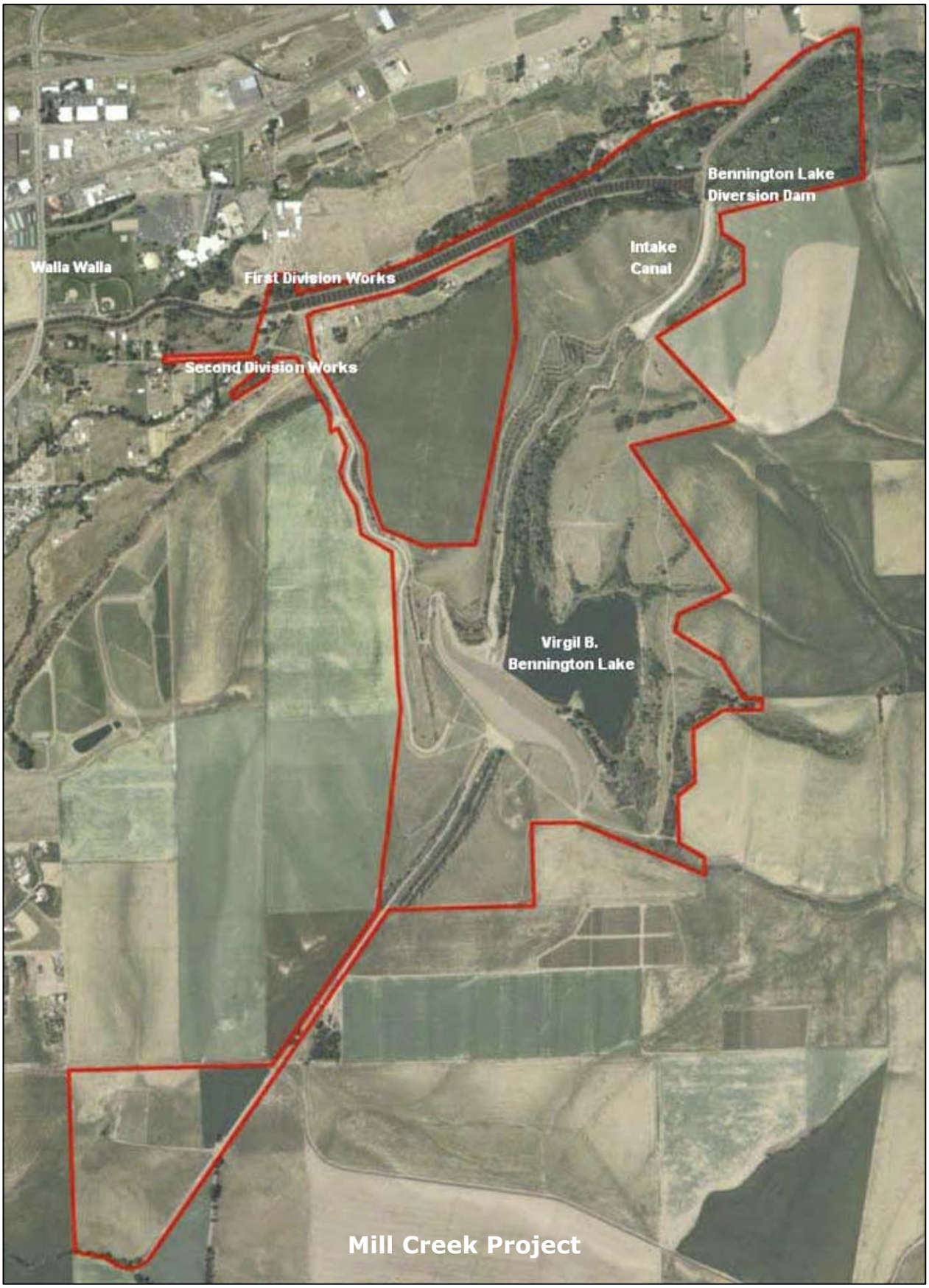
2. **References.**
This review report was prepared in response to EC 1165-2-209, 31 January 2010, Water Resources Policies and Authorities, CIVIL WORKS REVIEW POLICY. The review documents reside online at ProjNet (www.projnet.org), DrChecks Project and Review titles: Project: (FY090911) Bennington Lake Diversion Dam 1135 and Review: Feas Report ATR - Review Docs.

3. **Project Description**. The purpose of the study is to determine whether Federal interest exists in developing an implementable and acceptable plan to change future conditions at Bennington Lake Diversion Dam by addressing specific fish passage and related problems and opportunities, particularly those involving Endangered Species Act (ESA) listed species.

Bennington Lake Diversion Dam is located on Mill Creek, a tributary of the Walla Walla River. Mill Creek lies completely within the State of Washington, and is home to some 18 fish species. It has been designated critical habitat for bull trout and the Middle Columbia River steelhead distinct population segment along its entire 27-mile length.

Bennington Lake Diversion Dam is one component of the Mill Creek Project. (see figures below) The project was authorized by Congress in 1938 [Section 4 of the Flood Control Act of 1938 (Public Law 75-761)] to provide a comprehensive plan for protection of the City of Walla Walla from severe flood events on Mill Creek. The plan consisted of two major construction projects: 1) a concrete channel to contain Mill Creek through the city; and 2) an off-channel storage reservoir (now known as Virgil B. Bennington Lake) and the lands around the reservoir. Construction began in 1940, and the project was completed in late 1941. In addition, channel-spanning stabilizers were added both upstream and downstream of the concrete channel. The existing fish ladder at the dam was a project modification built on the left bank of the Mill Creek stabilized channel in 1982.




Bennington Lake
Diversion Dam
Intake
Canal
Walla Walla
First Division Works
Second Division Works
Virgil B.
Bennington Lake
Mill Creek Project

Fish passage at Bennington Lake Diversion Dam is inadequate. The existing ladder, built in 1982, does not meet Washington State fish passage criteria, nor does it meet National Marine Fisheries Service fish passage criteria for species listed as threatened or endangered under the Endangered Species Act. The inadequacy of the current ladder is also noted in the US Fish and Wildlife Biological Opinion, the Corps Biological Assessment, and the National Marine Fisheries Service Biological Opinion – all documents regarding operation of the Mill Creek Project.

The 2011 National Marine Fisheries Service Biological Opinion regarding operation of the Mill Creek Project included a jeopardy determination for the Middle Columbia River steelhead Distinct Population Segment, indicating that operation of the Mill Creek Project is likely to hinder the survival and recovery of the Middle Columbia River steelhead Distinct Population Segment run. The Reasonable and Prudent Alternative in this Biological Opinion was rejected by the Corps, but the recommendations contained within this Biological Opinion are still valid. Consultation has been reinitiated with both National Marine Fisheries Service and USFWS regarding operation of the Mill Creek Project.

In addition to problems at the ladder, Endangered Species Act -listed fish (and others) have been trapped in the stilling basin and perished when the water drained out. The intent of this project is to improve fish passage at Bennington Lake Diversion Dam, and make modifications to decrease the likelihood of fish mortality in the stilling basin.

This report integrates plan formulation with the analysis of environmental effects required by the National Environmental Policy Act (NEPA) of 1969. It describes the local ecosystem and other related water resource problems and opportunities in the area immediately surrounding Bennington Lake Diversion Dam, and expresses desired objectives. Alternative plans include a no action plan, individual management measures, and various combinations of measures, if appropriate. Economic, social, and environmental effects of the alternatives are described, and a plan is recommended for implementation.

Fish passage, both upstream and downstream, has been a concern for many years at Bennington Lake Diversion Dam. Upstream from the dam, pristine habitat exists bull trout and salmon for spawning, foraging, rearing, and overwintering. Although the fish ladder has enabled some fish to pass the dam, there are times when passage is uncertain or impossible for smaller fish and extremely difficult even for larger fish. This is particularly true during periods of higher flow. As long as the flows remain below 400 cfs, the majority of the flow goes through the low-flow outlets and the ladder can

pass its design flow of 42 cfs. If flows exceed 400 cfs, water is routed over the spillway, and the low-flow outlet and fish ladder exit are closed to reduce debris problems. Flows during the period from November through May are, on average, higher than 400 cfs 5% of the time (equivalent of 11 days). Although the heaviest migration periods occur in April and May, many fish are hindered during their migration by ladder closures and high flows.

Additional information can be found at this link: http://www.whitman.edu/environmental_studies/WWRB/flood_control.html.

4. **Review Team.**

ATR Lead –. Marc Masnor, CESWT – 918-669-7349, Marc.L.Masnor@usace.army.mil. Marc Masnor, P.E. is a civil works water resources planner in the Tulsa District's Planning and Environmental Division. He coordinates the efforts of multidisciplinary teams in the evaluation of problems such as flooding, ecosystem degradation, and water shortages. He oversees the development of decision documents used by Congress to authorize the implementation of civil works projects. To develop those reports he leads study teams in the evaluation of problems and needs, selection of alternative evaluation methodologies, the analysis of findings of a multidisciplinary team that lead to conclusions and recommendations, and oversight of overall team documentation. As a senior plan formulation specialist and regional technical specialist, he also provides regional support for Little Rock, Galveston, and Fort Worth Districts. In this capacity he assists in the development of unique or complex formulation and analysis techniques within the framework of Corps of Engineers guidance; Federal, state, and local laws and regulations; and stakeholder interests. In a similar capacity, he leads and participates in independent technical review teams to analyze studies conducted by Districts across the country related to flood risk management, water management and reallocation, ecosystem restoration, levee and dam safety, and navigation. In February 2010 he was selected as the Southwestern Division Regional Manager to assist the FRM PCX National Manager, Eric Thaut (SPD). Mr. Masnor has worked in hydrology, design, and civil works planning offices within the Tulsa District and has completed a wide variety of water resources studies in Kansas, Oklahoma, and Texas. Studies include the evaluation of hydropower expansion on the McClellan-Kerr Navigation system; a system of 122 small reservoirs in the Grand-Neosho Basin; chloride control evaluations in the Arkansas and Red River Basins; multiple purpose reservoirs system formulation; storage reallocation studies, regional needs studies; watershed ecosystem restoration evaluations; and several local levee, channel, detention, and buyout plans.

Economics - Brian Harper, IWR – 409-766-3886, Brian.K.Harper@usace.army.mil. Brian Harper has 20 years of experience as an economist and planner with the Corps of Engineers. Brian is presently a regional economist with the Galveston District. He previously worked as a senior economist/planner at the Institute for Water Resources and was chief of the economics section in the Alaska District from 2002-2006.Prior to those assignments, Brian was a regional economist with the Little Rock District. While at IWR, he worked with a team to develop and implement risk-informed planning processes, with a particular focus on flood risk management and coastal storm damage reduction. In Alaska his work included extensive involvement in small boat harbor and flood & coastal storm damage evaluations. In the Little Rock District he conducted planning studies and economic evaluations across multiple Corps missions. He introduced risk analysis techniques into the District's evaluations of three hydropower projects in the mid-90's and served on the SWD regional technical team for hydropower rehab studies. Brian also incorporated risk & uncertainty analyses into flood damage reduction studies and completed many water supply reallocation, inland navigation, agricultural flood damage, and stream-bank erosion studies. He started his Corps career as a Dept of the Army intern with the Los Angeles District from 1989-1991. He works remotely from the Galveston District Office, Galveston, Texas.

Sociology - Edwin J. Rossman, Ph.D. CESWT - 918-669-4921, Edwin.J.Rossman@usace.army.mil. Mr. Rossman has 30 years experience in Planning with the Corps of Engineers. He is currently Chief, Planning Branch, Tulsa District. He has held that post since 2002. Prior to that position, Ed served as a social scientist for the District beginning his Corps career in 1980. As part of the Tulsa District Planning Branch staff, he has organized and participated in public meetings and workshops throughout the Southwestern US. He earned his Ph. D. in sociology in 1990 from the University of North Texas and his Masters and Bachelors in sociology from Texas Tech University in 1977 and 1974 respectfully. Mr. Rossman has served on numerous agency technical review teams with expertise in economics, social considerations, public involvement, recreation and plan formulation. He also served on the Interagency Performance Evaluation Team (IPET) as lead on the documentation of the social, historic and cultural impacts of Hurricane Katrina, New Orleans, LA. Ed is an instructor in the Planning Associates program and is an Adjunct Professor at Oklahoma State University, Environmental Science Program.

Plan Formulation and Policy – Douglas E. Lilly, CESWT-PE-P, 918-693-7196, Douglas.E.Lilly@usace.army.mil. Mr. Lilly is a lead water resources planner for the U.S. Army Corps of Engineers, Tulsa District. Mr. Lilly also serves as

Project Manager for assigned projects. His professional experience includes planning and management of watershed studies and projects for flood control, stream bank erosion, and ecosystem restoration in southern Kansas, Oklahoma, northern Texas, and the western United States. Mr. Lilly began his Corps career as a study manager in February 1987 in the Planning and Environmental Division. Prior to his Corps career, he worked as a structural engineer at a consulting engineering firm in Tulsa, Oklahoma. Mr. Lilly is a native Oklahoman. He graduated from Oklahoma State University with a Bachelor's Degree in Architecture and a Master's Degree in Architectural Engineering.

Patricia Newell, Senior Biologist and Technical Study Manager, CESWT-PE-E, 918-669-4937, Patricia.A.Newell@usace.army.mil. Ms Newell has over 35 years experience in land and water resources planning and natural resources management at the Federal level and in private industry, with over 25 years experience specifically in researching, writing, and reviewing NEPA documents. She has served USACE in both planning and environmental compliance; and served as the Natural Resources Program Manager for the National Guard Bureau, Air National Guard. Prior to her Federal tenure, Ms Newell was a Natural Resources and Environmental Planner for the Dewberry Companies based in Fairfax, Virginia, where she participated in and directed the preparation of environmental assessments for various private and Federal clients, including the USACE and FEMA. Of note, she directed the preparation of the environmental documentation completed to relocate the town of Valmeyer, Illinois out of the Mississippi floodplain subsequent to the Great Mississippi flood of 1993. This was one of the first communities to benefit from Federal assistance through FEMA and the Department of Energy to relocate the entire community out of a major floodplain and incorporate sustainable technologies into structural designs for newly built commercial, industrial, and residential components. Ms. Newell's educational career includes a BS degree from the University of Maryland in Botany (Plant Taxonomy) and Landscape Horticulture (dual major); a Graduate Certificate in Planning from George Washington University in Washington DC; and she completed graduate studies at George Mason University, Virginia, in Environmental Biology (Ecology focus) and Public Policy.

Russell Wyckoff, Hydraulic Engineer, CESWT – 918-669-7107, Russell.Wyckoff@usace.army.mil. Mr. Wyckoff graduated from Oklahoma State University in 1986 with a Bachelor of Science degree in Agricultural Engineering. He is a Registered Professional Engineer in the state of Oklahoma. He has worked for the U.S. Army Corps of Engineers for 23 years in the Tulsa District office. He currently serves as the Lead Hydraulic Design Engineer for Tulsa District in the areas of flood modeling and flood control structure design as well as Dam and Levee Safety. He has also

integrated detailed terrain analysis and GIS (Geographic Information System) applications as part of the modeling process. Mr. Wyckoff serves on a National Dam Safety Evaluation Team and has conducted several Risk Based Analyses in the field of Hydrology and Hydraulics. Current work includes modeling of dam break scenarios on multiple structures nationwide as well as levee certification modeling, all based on risk analysis framework.

Real Estate – Douglass B. Young, CEMVM-RE-P – 901-544-3154 Douglas.B.Young@usace.army.mil. Mr. Young has over 27 years of professional experience in the Real Estate and Economic fields with the Memphis District, Corps of Engineers. He has a B.B.A. in Real Estate, B.S.E. in Education, M.A.T. in Economics, and M.A. in Economics. Douglas was assigned in 1997 to the Appraisal Branch and is presently a staff appraiser/economist on all Continuing Authorities Program projects. Prior to transferring to the Appraisal Branch, Douglas worked as an economist in the Economic and Social Analysis Branch for 14 years. He has performed Internal Technical Reviews for in-house reports, and Agency Technical Reviews for other Corps Districts. As a Project Delivery Team member, he prepares costs estimates, gross appraisals, Real Estate Plans, tract appraisals, and LERRDs crediting for the Real Estate Division.

Cultural - Michelle Horn, CESWT - 918-669-7642, Michelle.C.Horn@usace.army.mil. Ms. Horn is an archaeologist for the Tulsa District's Planning and Environmental Division, providing cultural resources support for various projects including civil works, military, CAP, operations, and regulatory programs. Ms. Horn graduated from the University of Oklahoma with a Master's Degree in Anthropology, specializing in archaeology and museum anthropology. She has review experience through work with the Oklahoma Archaeological Survey and the Tulsa District. Ms. Horn has participated on seven technical review teams.

Fish / Restoration Ecologist – Frank M. Veraldi, CELRC-PM-PL-E - 312-846-5589, Frank.M.Veraldi@usace.army.mil. In 1998, Frank began with the US Army Corps of Engineers as a Biologist in the Environmental Formulation Section. Assignments included data collection, NEPA Compliance, restoration design, regulatory support, greenways and impact assessment. In 2004, his duties increased as a Study Manager / Plan Formulator in the Environmental Formulation Section; which include regulatory support, feasibility-level plan formulation and restoration design. He is also the team leader for ecosystem restoration at the Chicago District for the Great Lakes portion of the Division. Frank is currently responsible for the coordination, formulation and design of about 40 ecological restoration projects. Some of these are the Grand Calumet River Environmental Clean Up, the Red Mill Pond Preservation, the Hoffman Dam Removal, Orland Tract Grassland

Restoration, East Branch DuPage River Restoration, and the Ft. Sheridan Coastal and Ravine Restoration. All of these projects seek to restore natural hydrology and natural processes to reestablish self-sustaining and functioning habitats. Frank has also published several papers on the distribution of fishes, dam fragmentation, and is preparing a manuscript on the Fishes of the Chicago Wilderness Region.

Geotechnical Engineering – Melissa Mullen, CEMVM-EC-G – 901-544-0716, Melissa.K.Mullen@usace.army.mil. Ms. Mullen is a registered Professional Engineer in the state of Tennessee, has been a practicing engineer since 1991, and has a Masters of Science degree in Civil Engineering from The University of Memphis. Ms. Mullen joined the Corps of Engineers as a Geotechnical Engineer in May 1999. In addition to her Geotechnical Duties, in January 2008 she became the Levee Safety Program Manager for the Memphis District. Prior to her work at the Corps, Ms. Mullen spent 5 years as a Geotechnical Engineer with Engineering and Testing Services, Inc. and Professional Services Industries in Memphis TN. In the early 1990's, Ms. Mullen spent 2 years as a Geotechnical / Environmental Engineer working for Terra Vac, Inc. of San Leandro, CA.

Cost Engineer - James Sentz, P.E., CCE, CENWW - 651-290-5625, James.D.Sentz@usace.army.mil. Cost and Specifications Engineer, Section Chief for the Mechanical, Electrical, Cost and Specifications Section, Design Branch. Twenty five years experience in the engineering field, including 10 years as a cost and specifications engineer. Experience in producing Civil Works estimates and specifications for a broad variety of projects including levee's, floodwalls, pump stations, lock and dam rehabilitation, bank protection, fish and wildlife projects, mechanical and hydraulic dredging, recreational facilities and trails, and emergency facility estimates in support of emergency temporary housing/public facility missions. Types of estimates include Planning Level Estimates for federal interest reports, feasibility reports, and other planning documents; Current Working Estimates during engineering and design, and Independent Government Estimates in support of contract award, and construction contract modifications. Contracting experience includes Best Value/Source Selection procurements, Negotiated RFP's, and Invitation for Bids (IFB's). Qualified as a Cost DX Certified ATR Resource.

Cost Engineering - James G Neubauer, P.E. CENWW - 509-527-7332, James.G.Neubauer@usace.army.mil. Mr. Neubauer is the Technical Cost Engineering Lead for the Cost Engineering District of Expertise (DX) for Civil Works located in Walla Walla, WA. Jim has 12 years of civil and military cost engineer experience. He has been the lead estimator in Albuquerque, NM, Chief of Cost - Europe, and lead estimator Walla Walla, WA. He has 11

years civil works construction experience in Wyoming, Europe, and Walla Walla, WA. Mr. Neubauer has 5 years military and civil project manager experience for Europe and Albuquerque projects. Jim has participated on numerous technical review teams, including several projects with cost estimates greater than $1billion. Jim is the Cost DX ATR Coordinator, is a Certified Cost Engineer, and has his PM1 Certification.

5. Summary. Cost engineering comments were more numerous than other disciplines and took the longest time to resolve, although none of the comments were critical. The cost engineering coordination often takes the longest time to backcheck due to the inherent times required to revise detailed cost estimates. A lesson learned is suggested below. All of the comments were technical, but none were critical; and all comments were resolved. The summary below categorizes the comments and suggests lessons learned for the PCX.

a Critical. None.

b. Unresolved None.

c. Lessons Learned. The first two lessons learned may have general applicability to the ATR process. The third issue may require PCX or PCX Guild input before implementation.

Coordination with the Cost DX, throughout development of cost estimates and feasibility report cost engineering documentation, could have identified most if not all issues found during ATR and could have significantly reduced the time necessary to resolve cost engineering issues.

Some documentation consistency issues (varied disciplines) could have been identified by a more thorough DQC. A "page turn" reading is recommended by the entire PDT.

Some coordination delays occurred because ATRT and PDT members were not available at times during the ATR. Because both teams work on numerous projects and have professional and person obligations and commitments, some coordination delays may not be avoidable. When possible, the District POC and the ATRT Lead should discuss options to resolve comments in the temporary absence of the commenter/backchecker (ATRT) or evaluator (PDT).

6. Dr. Checks Report. The DrChecks report of all comments is attached as Enclosure 1.

7. ATR Completion and Certification.
Enclosure 2 contains completion and certification statements.

Marc L. Masnor, P.E.
Tulsa District
Plan Formulation Regional Technical Specialist
Southwestern Division

Enclosure 1

DRCHECKS REPORT OF ALL COMMENTS

Comment Report: All Comments
Project: (FY090911) Bennington Lake Diversion Dam 1135 Review: Feas Report ATR
Displaying 79 comments for the criteria specified in this report.

Id	Discipline	Section/Figure	Page Number	Line Number
4203045	Real Estate	8.5 Real Estate	8.2	n/a
Comment Classification: N/A Since all construction activity is taking place on Corps-managed land, no real estate acquisition is needed for construction, and real estate is not an issue. Real Estate has no comments. Submitted By: Douglas Young (901-544-3154). Submitted On: Sep 27 2011 Revised Apr 18 2012.				
1-0	Evaluation **Concurred** No respose required, as Real Estate has no comments. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 07 2012			
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Douglas Young (901-544-3154) Submitted On: Jul 17 2012			
	Current Comment Status: **Comment Closed**			
4564920	Environmental	Section 1.1	n/a	n/a
Comment Classification: N/A (Document Reference: Entire Section) REVIEW CONCERN: The Purpose and Need Statement is unclear and buried in the project history and study information. Suggest revising Section to provide the study background as an introduction first, and follow with a separate section for the Purpose and Need. The beginning of this report is difficult to understand because it seems to skip between study history and purpose. It seems that the Purpose of this study is to improve fish passage at the Bennington Lake Diversion Dam while maintaining the Flood Risk Reduction functions and allowing for successful connection of two segments of stream that are designated as Critical Habitat for federally-protected species in addition to several other fish species. A form of this statement is somewhat stated in the fifth paragraph but should be closer to or serve as the opening paragraph of the Purpose and Need statement. In Section 1.1, paragraphs 1, 2, & 6 could be reorganized and grouped as the Introduction to the study/EA and paragraphs 5, 3, & 4 (in that order) could be regrouped and revised to describe the Purpose and Need and explain the deficiencies that led to the decision to conduct the study. BASIS FOR THE CONCERN: 40 CFR 1500.1; 40 CFR 1500.4 (d) and (f); 40 CFR 1502.13 SIGNIFICANCE OF THE CONCERN: Although this comment does not affect the decision making, it adds clarity to the discussion and helps the decision maker understand the project. The introduction and opening discussion form the basis of the need to complete the study and take action. These statements need to be clear so that all readers understand what is being proposed. As written, the opening section is unclear and causes confusion. The information is there, it is not presented in an understandable fashion so that the reader can progress logically through the process. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest revising the section for clarity and understanding. Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012				
1-0	Evaluation **Concurred** Changed as suggested. Section 1.1 is now introduction and Section 1.2 is the Purpose and Need. Reworked paragraphs as suggested. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 12 2012			
1-1	Backcheck Recommendation **Close Comment** The revised sections are very much improved and direct. The revisions are presented such that the project is presented more clearly. Good work! Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012			
	Current Comment Status: **Comment Closed**			
4564926	Environmental	Section 1.1	n/a	n/a
Comment Classification: N/A (Document Reference: 4th paragraph)				

REVIEW CONCERN: The statement is made in the second sentence that the reasonable and prudent alternative contained in the 2011 NMFS BiOp was rejected but the recommendations in that report are valid. This statement needs more explanation to clarify the contradiction. Is there a specific reason that the BiOp was rejected? If so, explain briefly. Otherwise, the statement appears to be contradictory as presented – we rejected the report but its recommendation is valid. BASIS FOR THE CONCERN: 40 CFR 1500.4 (f) and 1502.8 SIGNIFICANCE OF THE CONCERN: Does not affect the decision to be made. It adds clarity to the discussion and helps the decision maker understand the project as well as other reviewers. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest adding a brief discussion of the reason the BiOp was rejected.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Changed as follows: The 2011NMFS BiOp regarding operation of the MCFCP included a jeopardy determination for the MCR steelhead DPS, indicating that operation of the MCFCP is likely to hinder the survival and recovery of the MCR steelhead DPS run. The Reasonable and Prudent Alternative (RPA) in this BiOp was rejected by the Corps, because portions of the RPA are outside the scope of the Corps' authority. However, many of the recommendations contained within this BiOp are still valid. Pre-consultation discussions are currently underway with both NMFS and USFWS regarding operation of the MCFCP. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 12 2012
1-1	Backcheck Recommendation **Close Comment** Excellent! Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012
	Current Comment Status: **Comment Closed**

4564927	Environmental	Section 1.5	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: Suggest creating a graphic depiction of the Bennington Lake system that is labeled with the same terminology as used in the written description of the history of fish passage at the diversion dam. The vicinity map is good for geographic reference; however, it is difficult to see the upstream areas of Mill Creek, so the "pristine" habitat is not readily visible and the reviewer must draw their own conclusions regarding how this entire system works. To be consistent, labels on the graphic will assist a reviewer who is not familiar with the area where the forebay and stilling basins are located. Labe the discussed/named features such as the concrete channel to Walla Walla are (labeled as "first division works" on the vicinity map). A graphic can and does support the written discussion. BASIS FOR THE CONCERN: 40 CFR 1500.2 and 1500.4(d) and (e) SIGNIFICANCE OF THE CONCERN: Does not affect decision making but will support the written project descriptions and add clarity to the discussion. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest creating a graphic.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** The graphic has been enlarged, but otherwise is unchanged. Text was added to the title of the graphic for clarity. Pristing habitat is about 15 miles northeast of the project boundaries. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 12 2012
1-1	Backcheck Recommendation **Close Comment** Thank you. Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012
	Current Comment Status: **Comment Closed**

4564934	Environmental	Section 1.5	1-6	n/a

Comment Classification: N/A
(Document Reference: Reasonable and Prudent Alternative)
REVIEW CONCERN: The statement is made that the BiOp was rejected by the Corps but the recommendations are still valid. This statement needs clarification. Explain the reasons the BiOp was rejected and what accomplishments are expected from re-initiating consultation with NMFS and USFWS. BASIS FOR THE CONCERN: 40 CFR 1500.4 (f) and 1502.8 SIGNIFICANCE OF THE CONCERN: Supports the decision to be made. It allows the decision maker and reviewers to better understand the history and process, especially if it affects the outcome of the project. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest adding a brief discussion of why the BiOp was rejected and how it relates to this study.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Changed to read: The RPA in the NMFS 2011 BiOp was rejected by the Corps, because it contained actions outside of the Corps' authority. However, many recommendations contained within BiOp are still valid. Pre-consultation discussions are currently underway with both NMFS and USFWS regarding operation of the MCFCP. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 12 2012
1-1	Backcheck Recommendation **Close Comment** Excellent! Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012
	Current Comment Status: **Comment Closed**

4564940	Environmental	Table 3-4	3-25 and 3-26	n/a

Comment Classification: N/A
REVIEW CONCERN: This Table should be divided into two tables. The "Environmental Resources" portion should be moved into the Environmental Consequences as a summary to accompany the impacts discussion. The "planning" portion of the table should remain in this section since it relates to the plan formulation process and supports the discussion of the various alternatives. Also, as the environmental consequences of each affected resource is discussed in the table, identify the effects in quantitative and/or qualitative terms, i.e. short term temporary, long term, adverse, beneficial, etc. Do not use words that are value judgments about the impact. Value judgments are those that are made by the decision maker and the public. Specifically, the use of the word "unacceptable" under the "Air/Noise" environmental resource is a value judgment and should be revised to reflect the facts – is this a temporary impact only during construction or will this action change the air quality/noise conditions permanently? The use of quantitative and/or qualitative terms allows an understanding of the effects on the affected resource and provides a clear basis for the choice among all the options. BASIS FOR THE CONCERN: 40 CFR 1502.14 and 40 CFR 1508.27 SIGNIFICANCE OF THE CONCERN: Supports the decision to be made and the ultimate alternative chosen. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest splitting the table and reviewing the individual cells under each alternative and resource area to remove words that are value judgments and use words such as short term impact, long term impact, temporary impact, adverse impact, beneficial impact, etc.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Check and Resolve** We have eliminated value judgements in the table, as suggested. We do not concur with splitting the table into two tables, as we believe a summary of information required to formulate the plan should be available in this section. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 12 2012
1-1	Backcheck Recommendation **Close Comment** This is acceptable. I thought that it was also a good summary that supported the NEPA portions of your document as well. Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012
	Current Comment Status: **Comment Closed**

4564948	Environmental	Section 5.2.1.2	5-2	n/a

Comment Classification: N/A
REVIEW CONCERN: Under "Direct Impacts of the Alternatives" the statement is made that a "few trees would also be removed near the existing trail" and the area would be altered. However, the last sentence states that it is not expected that any vegetation benefits would be lost. If trees or other vegetation is removed, that is an impact and it should be noted as such. Will the removed trees be replaced? Are these trees on Corps property? The statement is not valid that vegetation benefits would not be impacted if in fact trees are going to be removed. BASIS FOR THE CONCERN: 40 CFR 1502.14 and 40 CFR 1508.27 SIGNIFICANCE OF THE CONCERN: Supports informed decision making. The significance of an action is analyzed in several contexts in NEPA documents. Although significance varies with the setting of the proposed action, it must be identified in both context (short term, long term) and intensity (adverse, beneficial). ACTION NEEDED TO RESOLVE THE CONCERN: Suggest expanding this section to identify the impact associated with removing trees (and/or other vegetation) and capture the context and intensity of the action of removing vegetation.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Text revised to describe the minor impact on vegetation. Submitted By: Ben Tice (509-527-7267) Submitted On: Jun 01 2012
1-1	Backcheck Recommendation **Close Comment** Thank you. Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012
	Current Comment Status: **Comment Closed**

4564955	Environmental	Section 5.2.1 Vegetation Impacts	n/a	n/a

Comment Classification: N/A
(Document Reference: Subsection 5.2.1.4)
REVIEW CONCERN: Regarding the sentence beginning "In the future".....ETL 1110-2-571, entitled "Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams, and Appurtenant Structures" dated 10 April 2009, establishes root-free zones surrounding the above-mentioned structures. Given this ETL, removal of encroaching vegetation is a "reasonably foreseeable future condition" and should be noted as such here. Although the proposed fish passage project does not affect vegetation directly, its removal directly affects stream temperature, nutrient uptake, and water quality. As such, habitat quality is affected. If trees are removed, then there is an impact. If no trees are going to be replanted, then that impact is long term and adverse. As such, the statement that vegetation removal would not add to cumulative impacts on vegetation is invalid. BASIS FOR THE CONCERN: 40 CFR 1508.27 SIGNIFICANCE OF THE CONCERN: Clear statements of the impacts provide the basis for making an informed decision under NEPA guidelines so that the decision does not appear arbitrary. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest reviewing the impacts section to ensure that quantitative and qualitative descriptive words are used to indicate the change expected from the construction and operation of this proposed project.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Non-concurred** A few individual trees would be removed along the existing trail to make room for the new fish passage structure. This is a few out of hundreds in the immediate area. Other cumulative effects on vegetation in the area are not known. We do not believe the removal of a few trees would not add to the cumulative effects on vegetation. If deamed necessary, trees could be replanted along the rerouted bike trail. Submitted By: Ben Tice (509-527-7267) Submitted On: Jun 01 2012
1-1	Backcheck Recommendation **Close Comment** I understand. It was difficult to tell that from the graphic depiction in Photo 2-1. It kind of appears to be a simgle line (more or less) of trees on the right bank. Given that there are many trees, I agree with your assessment. Thanks. Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012
	Current Comment Status: **Comment Closed**

4564958	Other	n/a'	Section 4.1.3 Socioeconomic Conditions.	n/a

Comment Classification: N/A
Statement of the Concern: The report should use the most currently available population data. The basis for the Concern: The review recognizes the date when the analysis may have been done and the date of the ATR. However, the report only specifies 2009 data. The US Census provides 2010 on-line and is readily accessible. Significance for concern: This not a major issue. Actions to resolve: Insert the most current population data into the report.

Submitted By: Ed Rossman (918-669-4921). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Changed to include current population data (Section 4.1.3)

	Submitted By: Karen Kelly (509 527 7248) Submitted On: Aug 31 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Ed Rossman (918-669-4921) Submitted On: Aug 31 2012
	Current Comment Status: **Comment Closed**

4564960	Environmental	Section 5.2.4.2	5-5	n/a

Comment Classification: N/A
REVIEW CONCERN: It is the responsibility of the Corps to state what we anticipate the outcome to be from the implementation of this project with regard to Threatened and Endangered species. This is our responsibility under NEPA to demonstrate that we are in compliance with all applicable laws. There is no statement here that we expect the impact on T&E species to be a "no affect," "may affect but not likely to adversely affect," "adversely affect," etc. Such a statement needs to be included here. BASIS FOR THE CONCERN: 40 CFR 1507.2 and 40 CFR 1508.8 SIGNIFICANCE OF THE CONCERN: Supports the decision making process and allows for an informed decision by the decision maker. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest adding the anticipated impact on T&E species to this discussion.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Non-concurred** Additional explanation text added. This is an action required by ESA consultation for O&M of the Flood Control Project. Effect determinations were made during that consultation. Since No Jeopardy was found for bull trout and the Corps rejected the NMFS BO, no further effect determinations are necessary. If this project hadn't been covered by a previous consultation, the effect determination would be LAA. Submitted By: Ben Tice (509-527-7267) Submitted On: Jun 01 2012
1-1	Backcheck Recommendation **Close Comment** I understand your point and agree. Since the discussion regarding the ESA actions and determinations were not explained in the original review document, the "No Jeopardy" determination was not evident. Thanks for adding the discussion, it adds clarity to the document that a reader unfamiliar with the process would understand. Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012
	Current Comment Status: **Comment Closed**

4564962	Other	n/a'	Section 4.1.3 Socioeconomic Conditions.	n/a

Comment Classification: N/A
Statement of the concern: Future with-out project conditions for population. The basis for the concern: Unless the reviewer missed it, there is no future population projections for the with-out project condition. Significance for concern: This is not major issue. However, the description of the without social and economic is required for NEPA documentation and Corps planning. Actions to resolve: Use local or state planning agency projections for the county populations, usually done at a 50 year horizon.

Submitted By: Ed Rossman (918-669-4921). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Changed to read: Each of the identified alternatives would have some economic impact on the study area, although any impact would likely be negligible. A small amount of short-term economic growth could occur in the area as construction activities ramp up. The current steelhead fisheries in the Walla Walla River Basin, within the State of Washington, provide several million dollars in benefits to the local economy each year. The future opportunity to offer steelhead and Chinook salmon fishing in Mill Creek, particularly as it is so near (and in) the city limits of Walla Walla, could provide large economic benefits from both local residents and tourists, providing a nice complement to the existing wine tourism industry. Submitted By: Karen Kelly (509 527 7248) Submitted On: Aug 31 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment.

	Submitted By: Ed Rossman (918-669-4921) Submitted On: Aug 31 2012
	Current Comment Status: **Comment Closed**

4564967	Cultural Resources	Section 4.2.4	4-11	n/a

Comment Classification: N/A
REVIEW CONCERN: The statement is made that the MCFCP is eligible for listing on the National Register for Historic Places (NRHP). Who completed the eligibility determination? When was this property determined eligible? If there is a consensus evaluation, then this section needs to be expanded to summarize that evaluation. Age is only one criterion for listing on the NRHP, other characteristics contribute to eligibility and should be addressed. This section must be expanded to include what, if any, cultural resource surveys have been completed in the proposed project area, the results of those surveys, and what coordination activities with the SHPO have occurred to date. Also, the statement that there is some potential for undocumented buried cultural properties within the project should be expanded. What investigative technique is being used to identify these suspected buried cultural resources – coring, backhoe trenching? This statement is not valid unless a cultural resource survey has been completed. A cultural resource survey should have been conducted by this point and coordination activities with the SHPO should be underway. All of those activities need to be included in this discussion. BASIS FOR THE CONCERN: 36 CFR 800 SIGNIFICANCE OF THE CONCERN: Supports the informed decision making process. If these surveys have not been conducted, then how do we know there is no impact to this resource? The decision maker and signatory on the FONSI needs to identify what, if any, impacts are expected from the construction of this proposed project. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest revising this section to elaborate on the status of Cultural Resources surveys and the eligibility determination for listing the project on the NRHP.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Changed to read: The MCFCP was developed by the Corps' Bonneville District, under the Federal Work Progress Administration (Project Number 65-93-926), and was constructed from 1940 through 1942. The MCFCP is a closed loop system that is designed to control and divert high water flows above the City of Walla Walla. The dam and dike were built in 1940, and the concrete channel through town was completed in 1941. In 1942, the intake headwork and canal became operational. Various modifications to the MCFCP, including the addition of the 1982 fish ladder, have occurred without significant loss of historic value. Rooks Park, established in 1983, and the trails in and around the project, have created public interest in the MCFCP. Any of the proposed alternatives would alter contributing elements of the MCFCP, which is potentially eligible for listing on the National Register of Historic Places because of its age and association with mid-twentieth century Federal works programs. The National Historic Preservation Act requires agencies to consider the potential effects of any project on properties 50 years of age or older. Ground-disturbing activities associated with any of the alternatives have the potential to affect additional, previously undocumented historic properties. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 12 2012
1-1	Backcheck Recommendation **Open Comment** The MCFCP is "potentially eligible" for the National Register. The overall project dates to the 1940s and as the report indicates, has some historic significance. In fact, the report assumes that the MCFCP is NRHP-eligible. However, there is no evidence that the NRHP eligibility was ever formally coordinated with the WA SHPO, nor were the features that make the MCFCP historically significant ever identified. The first step here is to coordinate MCFCP NRHP eligibility with the Washington SHPO and identify the features that contribute to that eligibility. Short of completing this task, the EA is premature. The EA currently assumes MCFCP is NRHP-eligible but that the 1980's features are not contributing elements because they do not exceed 50 years in age. The 1980s features, if they contribute to the same themes/characters that make the MCFCP NRHP-eligible, could be contributing elements. Historic structures can be eligible for the NRHP regardless of age if they contribute significantly to some historic theme -- even if that theme was broadly representative of a time younger than 50 years (e.g., Cold War). Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 12 2012
2-0	Evaluation **Concurred** The information contained in the attachment has been added to the report. Submitted By: Karen Kelly (509 527 7248) Submitted On: Sep 19 2012 (Attachment: MCP_Cultural_resources_specialist_report2.docx)

2-1	Backcheck Recommendation **Close Comment** See backcheck from Comment #4583461 Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 24 2012
	Current Comment Status: **Comment Closed**

4564973	Cultural Resources	Section 5.2.7	5-8	n/a

Comment Classification: N/A
REVIEW CONCERN: In Section 4.2.4, the statement that there is the potential for buried cultural resources, yet the discussion of impacts states that despite that need to alter part of the diversion levee, the impacts would be minimal. These two sections seem to contradict each other. Also, there is no discussion of what, if any, cultural resources surveys have been conducted to date and the results of such surveys. If there has not been a cultural resources survey, how can we evaluate the impacts expected from the proposed project? It is the responsibility of the Corps to comply with all applicable Federal laws. How do we know we are in compliance? Also, this section states that consultation with the SHPO and tribes would be necessary prior to implementation. That consultation should have been initiated by now and the status of that consultation should be included here. BASIS FOR THE CONCERN: 40 CFR 1507.2, 40 CFR 1508.8, and 36 CFR 800 SIGNIFICANCE OF THE CONCERN: Clear statements of the impacts provide the basis for making an informed decision under NEPA guidelines so that the decision does not appear arbitrary. It is the responsibility of the Corps to include a statement on the expected impacts to demonstrate to other agencies that we are in compliance with federal laws. For Cultural Resources those compliance statements can be "no potential to affect," "no historic properties identified," "no adverse effect on historic properties/cultural resources," and/or "historic properties/cultural resources adversely affected." ACTION NEEDED TO RESOLVE THE CONCERN: Suggest revising all of the sections regarding Cultural resources to describe what surveys have been completed, the status of consultation with the SHPO and tribes, and how those resources are affected by this proposed project.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Changed as follows: 5.2.7.1 No Action The MCFCP is a historic property, and potentially eligible for listing on the National Register of Historic Places, due to its unique configuration and association with mid-twentieth century Federal works programs. It will continue to draw a segment of the population with its historical significance. This condition would remain unchanged if no alternative is implemented. 5.2.7.2 Direct Impacts of the Alternatives All proposed alternatives would have minor, direct impacts to the Headworks and Canal portion of the MCFCP. These two structures were built in 1944, and are designed to move water from Mill Creek into Bennington Lake. The Headworks and Canal structures are potentially contributing elements to the MCFCP. Each alternative would also involve minor ground disturbance outside of the immediate historic MCFCP, but previous disturbances during construction of the MCFCP likely have removed any additional, undocumented historic properties. The Corps is currently in consultation with the Washington State Historic Preservation Officer, Regional Tribes, as well as the local historical society regarding a determination that the proposed alternative would result in no adverse effect to historic properties. 5.2.7.3 Indirect Impacts No indirect impacts to cultural resources from any of the fish passage alternatives are anticipated. 5.2.7.4 Cumulative Impacts No cumulative impacts to cultural resources from any of the fish passage alternatives are anticipated. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 12 2012
1-1	Backcheck Recommendation **Open Comment** Once NRHP eligibility is established for the MCFCP, NWW can establish whether any of the alternatives would result in an adverse effect. If the MCFCP is NRHP-eligible, additional SHPO consultation will be necessary. As submitted, the EA is insufficient in addressing these cultural resource issues. Section 4 must address a fully coordinated NRHP determination for the MCFCP and whether the 1980s features are contributing elements. That coordination with WA SHPO must therefore be completed. Section 5 would then evaluate the effects of each alternative on the MCFCP and all pertinent contributing elements. If the MCFCP is not NRHP-eligible, there will be no effects to discuss. Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 12 2012
1-2	Backcheck Recommendation **Close Comment** See backcheck to comment #4583461 Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 24 2012
2-0	Evaluation **Concurred** Information found in the attachment has been added to the report.

	Submitted By: Karen Kelly (509 527 7248) Submitted On: Sep 19 2012 (Attachment: MCP_Cultural_resources_specialist_report1.docx)
	Backcheck not conducted
	Current Comment Status: **Comment Closed**

4564981	Other	n/a'	Section 4.1.3 Socioeconomic Conditions.	n/a

Comment Classification: N/A
Statement of Concern: The nature of the flood risk management provided for populations and economic activities is unaddressed. Basis of Concern: The without project conditions involves a dam which provides flood risk management for population and economic activities downstream. The report does not address the population or economic activities/assets that are at risk. Flood risk management issues are used to eliminate alternative early (articulated as a constraint) Significant of the concern. This could be an important issue. One screened-out alternative is removal of the dam (Section 3.4.1). One of the formulation "constraints" is not to "reduce flood control capacity". It is not clear why this is a constraint, unless there is a significant threat to health and safety of human population and/or economic activity. Without an understanding of the nature for flood risk, the case for alternative flood risk measures can be made whereas the dam removal could still be a viable alternative. The reviewer strongly suggests identification of vulnerable population at risk, if any. If all that is protected is ag lands, there might be an issue. Action to resolve: Provide a description of the nature of the flood risk reduction measures provided by the dam including number and type of people whose flood risk are reduced and the economic value of protected property and associated economic activity.

Submitted By: Ed Rossman (918-669-4921). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Revised 3.4.1 to read: 3.4.1 Remove Bennington Lake Diversion Dam This measure would involve breaching or removing Bennington Lake Diversion Dam, thereby effectively negating the Mill Creek mandated project purpose of flood control. The measure violates the following constraints: 1) retain the ability of the dam to divert water during flooding events; and 2) maintain the dam's existing flood control capacity. The MCFCP protects a significant portion of the City of Walla Walla from flooding. Major floods occurred throughout the downtown area prior to project construction. Since project operation began, the reservoir has prevented $21,354,000 in cumulative flood damages, while the channel portion of the project has prevented $44,230,000 in cumulative flood damages. Therefore, the removal of Bennington Lake Diversion Dam is eliminated from further consideration. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Close Comment** Submitted By: Ed Rossman (918-669-4921) Submitted On: Aug 15 2012
1-2	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Ed Rossman (918-669-4921) Submitted On: Aug 15 2012
1-3	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Ed Rossman (918-669-4921) Submitted On: Aug 15 2012
	Current Comment Status: **Comment Closed**

4564983	Environmental	Sections 4 and 5	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: This project is proposed to be constructed in an existing water course. There is no discussion of wetland resources and/or Jurisdictional Waters of the US (WOUS), which includes wetlands. There is mention in the vegetation section of wetland vegetation being present but no specific discussion of the existing jurisdictional areas. Given that this fish ladder is a water-dependent facility involving land disturbance, presumably in a WOUS, in the construction phase and the potential for the physical disturbance of WOUS, what jurisdictional areas have been identified? Has a wetland delineation been performed? If so, include the results in the document. What, if any, permits will be required to construct this project? Is there a reason for omitting the discussion regarding WOUS in the affected environment and quantifying the impacts to this resource. The discussion of this existing resource and needs to be included in the affected environment and the impacts anticipated from the construction of this project needs to be included in the environmental consequences section. If no impacts are anticipated from construction of this

proposed project, or if the impacts can be mitigated, then a discussion and evaluation of the temporary impacts needs to be included as well. In Section 7 of the EA, the statement is made that the Corps will prepare an evaluation of discharges associated with discharges associated with this project. The Corps cannot demonstrate their compliance responsibilities with the Clean Water Act if the discussion in the EA does not include this resource. BASIS FOR THE CONCERN: 40 CFR 1500, 33 USC 1344 SIGNIFICANCE OF THE CONCERN: Affects the decision process. The decision maker cannot make an informed decision regarding anticipated impacts associated with this proposed project. The credibility of the predicted impacts depends directly upon the baseline information. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest adding the discussion pertaining to Waters of the US. If this resource is not anticipated to be relevant, then suggest adding a discussion as to the reason it is not relevant.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Added wetland discussion in chapters 4 and 5. Submitted By: Ben Tice (509-527-7267) Submitted On: Jun 21 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012
	Current Comment Status: **Comment Closed**

4564991	Environmental	Draft FONSI	n/a	n/a

Comment Classification: N/A
(Document Reference: Section 4 and 5)
REVIEW CONCERN: As the EA portion of the document is revised, this section of the FONSI will need to be revised accordingly. The summary included in the FONSI implies that there are minor impacts to resources, but does not include Waters of the US and/or wetlands. The discussion or lack thereof in the EA portion of the document does not support this conclusion. Also, under the Coordination Section, the statement regarding SHPO/CTUIR coordination utilizes the past tense, implying that coordination has been completed. The discussion in the EA does not support this conclusion. BASIS FOR THE CONCERN: 40 CFR 1500 SIGNIFICANCE OF THE CONCERN: Affects the decision to be made. ACTION NEEDED TO RESOLVE THE CONCERN: Suggest revising the FONSI once the EA is revised.

Submitted By: Patricia Newell (918-669-4937). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** FONSI has been revised to reflect changes to feasibility report. Submitted By: Karen Kelly (509 527 7248) Submitted On: Aug 31 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Patricia Newell (918-669-4937) Submitted On: Sep 10 2012
	Current Comment Status: **Comment Closed**

4564998	Other	n/a'	Section 6-1	n/a

Comment Classification: N/A
Statement of Concern: Public involvement is only being done after the draft DPR/EA is completed. Basis of Concern. As stated in the section, there has been no public involvement to date in the study. Many unknown issues may arise only after much of the analysis and formulation is complete. One of the evaluation criteria is "acceptability" and it is not clear who that issues has be addressed without some form of getting public input during the scoping process. No public involvement until the release of a draft document is not public involvement. Corp policy and NEPA guidance clearly indicates early public involvement through scoping is critical to sound and acceptable decision making. Significant of the Concern. This likely is not an important issue. As with most Corps studies, there may be a number of public involvement activities that are not documented in the report. However, it would be a big concern if the formulation process is void of any kind of opportunity for the public to be considered in the formulation and selection of recommended alternatives. Action to resolve. Briefly, the report should document activities in which public views that may have taken place prior to alternative evaluation. The report could include a short discussion of any of collaborating agencies efforts to involve stakeholders and the general public.

Submitted By: Ed Rossman (918-669-4921). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** The development of the alternatives to provide fish passage alternatives involved collaborating agencies as primary stakeholders (NMFS, WDFW, USFWS & CTUIR). Section 2.3 identifies collaborative effort since 2002. Section 6.2.2 describes the interagency team for Mill Creek, and was briefed on the project alternatives. Many of these groups were present when brainstorming Table 3.2. While the general public was not engaged during the scoping process, it is very unlikely that "unknown issues" would arise affecting the plan formualtion that the fish agencies would not identify themselves. Submitted By: Stan Heller (509-527-7258) Submitted On: Aug 20 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Ed Rossman (918-669-4921) Submitted On: Aug 31 2012
	Current Comment Status: **Comment Closed**

4565415	Geotechnical	n/a'	n/a	n/a

Comment Classification: N/A
Review Concern. There is no discussion of potential negative impacts to the existing corps structure due to lack of maintenance of the proposed fish ladder. Basis of Concern: If this project is constructed it will mean that a structure that is under the responsibility and authority of another entity will be constructed as a functioning part of a project that is currently under the sole responsibility and authority of the corps. The ability of the sponsor to perform required maintenance depends upon continued funding (which is never a sure thing and may fluctuate as environmental issues gain and lose favor). Significance of the Concern: Deterioration of the project structures could potentially impact the operation or integrity of the dam in a way that would impact its ability to provide flood risk reduction. Action needed to resolve concern: The report should discuss how poor (or no) maintenance of the project features in the future might impact the integrity and operation of the dam and its ability to perform its authorized flood risk reduction purpose.

Submitted By: MELISSA MULLEN ((901) 544-0716). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** Section 3.10 revised to read: Because the proposed work for this project would be done under Section 1135, the Sponsor is entirely responsible for all O&M on the constructed project features. As previously mentioned, this project is unusual in that it would be built on Corps-owned land, and would be an addition to Corps-owned structures. Although WDFW is working on legislative language for an exception to this rule, it has not been forthcoming. As it currently stands, WDFW would be responsible for all O&M on the constructed components of this project. While it is not unprecedented to have a privately-sponsored facility as part of a Corps-maintained structure (e.g., private hydropower plant at Lucky Peak Dam), it is unusual. The Corps would not likely proceed with a project under these circumstances. It would more likely be pursued through O&M funding. Maintenance on the new right bank fish ladder would be very similar to the maintenance requirements for the existing ladder. These requirements are listed in Table 3-10. Proposed operations are contained in Table 3-11. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: MELISSA MULLEN ((901) 544-0716) Submitted On: Sep 06 2012
	Current Comment Status: **Comment Closed**

4565434	Geotechnical	n/a'	n/a	n/a

Comment Classification: N/A
Review Concern: There are problems discussed in the report that do not appear to be addressed by the recommended plan. Basis for Concern: Two problems discussed in the report are (1) the existing fish ladder is closed 11 days during the peak migration period. However, based on Table 3-11, the new ladder will also be closed 11 days during the peak migration period. (2) Fish are diverted to Bennington Lake during high flow periods where they likely die. This issue does not appear to be addressed by the chosen alternative. Significance of Concern: This disconnect causes confusion and at worst may leave a light reader with the impression that the project accomplishes more than it does. Action needed to resolve concern: The report should create clear connections between the various alternatives and the problems / opportunities they address. If a problem, such as the diversion of fish to Bennington Lake is not addressed by this project, it should be discussed in the report as a future need. In general the report should state specifically how the proposed plan addresses each of the problems discussed in the report.

Submitted By: MELISSA MULLEN ((901) 544-0716). Submitted On: Apr 20 2012

1-0	Evaluation **Concurred** The issue of the ladder being closed (11 days) is not an issue that the project can solve; and the fish agency criteria requires the ladder be functional between the 5 & 95% flow ranges. So the criteria accepts that there will be high and low flow periods when the ladder will not be operational, or perform below standard. Same for diverting fish into Bennington Lake during high flows (the floodpalin study evaluated how the operation might be adjusted to minimze - but not avoid- the frequency of diverting into the Lake). Both of these will be reworded in the text as factual conditions, rather than issues that the Project could fix. Submitted By: Stan Heller (509-527-7258) Submitted On: Aug 20 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: MELISSA MULLEN ((901) 544-0716) Submitted On: Sep 06 2012
	Current Comment Status: **Comment Closed**

4574975	Planning - Plan Formulation	n/a'	p.31	n/a

Comment Classification: N/A
REVIEW CONCERN: The acceptability criterion is improperly explained. Acceptability is not a reference to whether a plan is popular and it is incorrect to state that unpopular plans will be dropped from consideration. _____ BASIS FOR THE CONCERN: ER1105-2-100 states that measures and plans have to be acceptable in terms of applicable laws, regulations and public policies. _____ SIGNIFICANCE OF THE CONCERN: Low. This criterion does not appear to affect how plans were screened and how the decision was ultimately made in this study. The concern is that this would be incorrectly applied in future studies. _____ ACTION NEEDED TO RESOLVE THE CONCERN: Edit the text to be consistant with the regulation.

Submitted By: Brian Harper (4097663886). Submitted On: Apr 26 2012

1-0	Evaluation **Concurred** Acceptability criterion reworked to match language in ER 1105-2-100. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Brian Harper (4097663886) Submitted On: Aug 21 2012
	Current Comment Status: **Comment Closed**

4575111	Other	n/a'	p. 67 and p.94	n/a

Comment Classification: N/A
REVIEW CONCERN: The discussion of OMRR&R responsibilities and costs is limited to routine annual activities and does not address the other periodic requirements that may appear as repair, replacement, and rehabilitation. For example, sediment dredging is mentioned as a potential periodic requirement in the plan description but is not mentioned in the O&M activities on p 67. _____ BASIS FOR THE CONCERN: _____ SIGNIFICANCE OF THE CONCERN: The significance is low with respect to identification of the recommended plan, but may be of concern for the sponsor, in terms of understanding the full range of OMRR&R responsibilities and estimated costs. _____ ACTION NEEDED TO RESOLVE THE CONCERN: Elaborate on the RR&R activities that are reasonable to anticipate during the project life.

Submitted By: Brian Harper (4097663886). Submitted On: Apr 26 2012

1-0	Evaluation **Concurred** The report was rewritten to distinguish forebay sediment removal from bypass channel and ladder sedimaent removal. All of the alternatives would be the same or less for forebay sediment removal, compared to the no action plan, and forebay sediment removal is a Corps responsibility. So it would not be correct to require the sponsor to perform forebay sediment removal. Submitted By: Stan Heller (509-527-7258) Submitted On: Aug 20 2012

1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Brian Harper (4097663886) Submitted On: Aug 21 2012
	Current Comment Status: **Comment Closed**

4575416	Biology-Ecology	n/a'	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: Maximum Fish Passage: Selection of Alternative 1B over Alternative 2. BASIS FOR CONCERN: Based on ecological restoration principles, restoration designs should avoid manmade and engineered features to the furthest extent possible, since it was these activities that have ultimately caused biodiversity to decline globally via modifying hydro and fluvial geomorphic functions. The system and species at hand are part of an imperiled Pacific Northwest ecosystem/fishery, primarily due to the presence of dams, riparian deforestation and habitat destruction. This report clearly presents discussion and facts that support the best possible solution to manmade impairments. It is of my opinion that there is no compelling reason not to recommend Alternative 2 aside from cost. An open channel design with boulder and cobble material indicative of the system would provide a hydraulic regime that native fishes evolved to, as opposed to the hydraulics established by a concrete/metal ladder with angular baffles. The contraption may pass large bodied fish just fine, but for the juveniles and smaller species (Richarsondius baleatus) that evolved body parts for swimming in natural stream channels and hydraulic conditions, this is not so great. It is understood that the dams in the Midwest are much diminutive to the Northwest structures; however, the Chicago District does not even consider fish ladders anymore; the options are either dam removal or bypass with natural channel designs. It also seems like the O&M may be more extensive on mechanical engineered feature as opposed to an open stone channel. Also, Table 5-1 displays the effects associated with the alternative and clearly shows Alternative 2 to outweigh Alternative 1B. And finally, it seems the NMFS, USFWS and the WDFW would support Alternative 2 SIGNIFICANCE OF CONCERN: Moderate. ACTION NEEDED TO RESOLVE CONCERN: If the PDT and non-Federal sponsors are so inclined to recommend Alternative 2, I am of the opinion to provide a section within the DPR that discusses the Significance of the project and present all the facts and acceptability factors for selecting 2 over 1B. It may simply be that the cost of Alternative 2 is too much for the non-Federal share however. A VE study perhaps on Alternative 2 to reduce costs? Locally Preferred Plan? Ultimately, please provide a rationale on this subject matter.

Submitted By: Frank Veraldi (312-846-5589). Submitted On: Apr 26 2012

1-0	Evaluation **Concurred** As you mention, there is no compelling reason not to recommend Alternative 2 aside from cost. The report identifies the alternatives that are cost effective. If the sponsor does not have funds to "buy" more benefits, then we can not recommend that plan. NMFS, USFWS and the WDFW are aware that Alternative 2 provides more benefit, but are unable to offer additional funds. We tried to leave the door open for Alt 2, if the sponsor can partner with another entity to raise additional funds for Alt 2. An LPP generaly costs the sponsor even more, when they are interested in constructing something that exceeds the Corps minimum requirements, which is not the case here. A VE study would not likely reduce the cost $4M (40%), which is the incremental sponsor cost difference between alternatives 1B and 2. As stated in Section 3.8, it is simply that the cost of Alternative 2 is too much for the non-Federal share. No changes to the report were made to address this comment. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Close Comment** The situation is understood, no further comment. Submitted By: Frank Veraldi (312-846-5589) Submitted On: Jun 19 2012
	Current Comment Status: **Comment Closed**

4575418	Biology-Ecology	n/a'	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: Table 2-1: Fish species clarification for reader. BASIS FOR CONCERN: I noticed the Midwestern introductions: Ameiurus nebulosus and the Centrarchids. SIGNIFICANCE OF CONCERN: Minor. ACTION NEEDED TO RESOLVE CONCERN: Suggest indicating native and non-native fish species. Also, a clarifying note on the varietal difference of Oncorhynchus mykiss, steelhead vs. rainbow may be helpful.

Submitted By: Frank Veraldi (312-846-5589). Submitted On: Apr 26 2012

1-0	Evaluation **For Information Only** This section is a general discussion. Additional fishery data was deamed unnecessary. The difference between steelhead and rainbow trout cannot easily be determined, especially for

	juvenile fish. Submitted By: Ben Tice (509-527-7267) Submitted On: Jun 01 2012
1-1	Backcheck Recommendation **Close Comment** No comment. Submitted By: Frank Veraldi (312-846-5589) Submitted On: Jun 19 2012
	Current Comment Status: **Comment Closed**

4575419	Planning - Plan Formulation	n/a'	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: Section 3.6.3: NER vs. NED BASIS FOR CONCERN: This project is justified on NER benefits expressed through Habitat Units. SIGNIFICANCE OF CONCERN: Minor. ACTION NEEDED TO RESOLVE CONCERN: Change NED to NER.

Submitted By: Frank Veraldi (312-846-5589). Submitted On: Apr 26 2012

1-0	Evaluation **Concurred** Section 3.6.3 changed to read: 3.6.3 The NER Plan Alternative 2, Swim-Through Channel, is a "best buy," but is second only to Alternative 3 in terms of cost. This indicates that Alternative 2 has enough potential environmental benefit to justify its higher cost. Alternatives 1B and 4 are cost-effective alternatives, meaning that they also provide many beneficial outputs in return for the cost. Only Alternative 3, Roughened Channel, was not found to be cost effective. Costs for the four alternatives are displayed in Table 3-8. Sponsor and Federal cost shares are shown in Table 3-9, and vary considerably between alternatives. The cost-share for project of this type is 75% Federal and 25% non-Federal, up to a Federal ceiling of $5 million. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 14 2012
1-1	Backcheck Recommendation **Close Comment** No comment. Submitted By: Frank Veraldi (312-846-5589) Submitted On: Jun 19 2012
	Current Comment Status: **Comment Closed**

4575423	General	n/a'	n/a	n/a

Comment Classification: N/A
Overall, from a fish passage and ecosystem restoration standpoint, the document does an excellent job at presenting information and decision methodologies in a logical manner.

Submitted By: Frank Veraldi (312-846-5589). Submitted On: Apr 26 2012

1-0	Evaluation **For Information Only** Thank you, It's the first comlete planning document I've done, so I particularly appreciate your comment. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Close Comment** Well done. Submitted By: Frank Veraldi (312-846-5589) Submitted On: Jun 19 2012
	Current Comment Status: **Comment Closed**

4579804	Hydraulics	Fish Ladder Closure	2-8	n/a

Comment Classification: N/A
(Document Reference: FREA Bennington ATR document)
REVIEW CONCERN: Since 400 cfs was exceeded only 11 days over a ten year period, how many of these occurred during the fish passage window? BASIS FOR THE CONCERN: For flows greater than 400 cfs the fish ladder has to be closed but the statement in the report does not say that whether these historically have occurred during the fish passage time. Knowing this could has impacts on the final design. SIGNIFICANCE OF THE CONCERN: Potentially

some significance ACTION NEEDED TO RESOLVE THE CONCERN: Present in the document the number of times that the existing fish ladder has had to be closed due to flows above 400 cfs.

Submitted By: Russell Wyckoff (918-669-7107). Submitted On: Apr 28 2012

1-0	Evaluation **Concurred** The design high discharge for the fishway is set by determining the mean daily streamflow that is exceeding 5% of the time during periods when migrating fish are normally present at the site, based on the previous 25 years of record. Thus the number of times or days the fishway is closed doesn't tell the whole story. The text has been revised to be more consistent and more clearly describe the design requirements to meet established fish passage criteria pertaining to the range of streamflow for which the fishway will operate. Primary discussion of this is now is Sect. 1.6. Submitted By: Sean Milligan ((509) 527-7535) Submitted On: Aug 23 2012
1-1	Backcheck Recommendation **Close Comment** The report revisions address the comment. Submitted By: Russell Wyckoff (918-669-7107) Submitted On: Sep 06 2012
	Current Comment Status: **Comment Closed**

4579805	Hydraulics	Fish Ladder Closure	2-8	n/a

Comment Classification: N/A
(Document Reference: FREA Bennington ATR document)
REVIEW CONCERN: How many days has the discharge exceeded 400 cfs for the last 12 years of data since the year 2000? BASIS FOR THE CONCERN: The only records used for the analysis are 11 years from 1990 to 2000. There are 12 additional years of record available that need to be used to help determine the impacts of flows above 400 cfs. SIGNIFICANCE OF THE CONCERN: Potentially significance since analysis of more years of record could impact the current assumptions. ACTION NEEDED TO RESOLVE THE CONCERN: Include the additional years of record to determine the number of times that the existing fish ladder has had to be closed due to flows above 400 cfs and impacts on other factors determined during the design analysis.

Submitted By: Russell Wyckoff (918-669-7107). Submitted On: Apr 28 2012

1-0	Evaluation **Concurred** The text has been revised to show that the period of record for evaluating the design range of streamflow over which the fishway should operate with good passage conditions is 1985-2010, or 25 years as specified in the NMFS fish passage criteria. The criteria specify a flow exceedance, not necessarily a given number of occurances or days the fishway is closed. Discussion consolidated in Sect. 1.6. Submitted By: Sean Milligan ((509) 527-7535) Submitted On: Aug 23 2012
1-1	Backcheck Recommendation **Close Comment** The report revisions address the comment. Submitted By: Russell Wyckoff (918-669-7107) Submitted On: Sep 06 2012
	Current Comment Status: **Comment Closed**

4579806	Hydraulics	Planning Constraints	2-11	n/a

Comment Classification: N/A
(Document Reference: FREA Bennington ATR document)
REVIEW CONCERN: Recommend an additional Planning Constraint related to passage of the SPF without overtopping the levees. This was noted as an opportunity and is very important for the safety of the downstream population. BASIS FOR THE CONCERN: The existing diversion spillway is not capable of passing the design PMF. The lack of capacity could cause issues with the storage dam/embankment overtopping or failure, plus the fish ladder options should recognize that any plans could utilize a reconfigured diversion spillway for SPF passage too. SIGNIFICANCE OF THE CONCERN: Need to recognize that a fish ladder fix could have dual purpose but is not mentioned in any of the plans. ACTION NEEDED TO RESOLVE THE CONCERN: Include the passage of the SPF as a planning constraint and incorporate it into the viable plans.

Submitted By: Russell Wyckoff (918-669-7107). Submitted On: Apr 28 2012

1-0	Evaluation **Concurred** Rather than adding as a planning constraint, we are planning to identify it as an "incidental

	benefit." It has not yet been decided which is the best way to provide the required additional capability to meet the SPF event. Section 8.1 will add the following text "An incidental benefit of the recommended plan would be to design the bypass channel to overtop during high flow events to, in effect, lengthen the spillway, with an elevation at or above the current spillway elevation, but below the adjacent levee elevation. Since there are other options to meeting the SPF shortfall, this feature will be considered during the design phase, as required." Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 20 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Russell Wyckoff (918-669-7107) Submitted On: Jun 21 2012
	Current Comment Status: **Comment Closed**

4579808	Hydraulics	2nd Paragraph	3-12	n/a

Comment Classification: N/A
(Document Reference: FREA Bennington ATR document)
REVIEW CONCERN: Both discharges of 327 cfs and 400 cfs are noted as corresponding to the flow exceeded only 5% of the time. These should be verified. Also, recommend noting the period of record used for determining the flow exceedance since the reference to significant events only went through the year 2000. I suggest updating the flow analysis to the current year as significant change could occur for this 12 year period. BASIS FOR THE CONCERN: It looks like the flow exceedance curve for the project needs to be updated. This is needed for determining the duration of the critical flow and should also include the additional years of data through 2012. SIGNIFICANCE OF THE CONCERN: The flow values noted seem to be contradictive, so verify the data. ACTION NEEDED TO RESOLVE THE CONCERN: Update the flow analysis with current year data.

Submitted By: Russell Wyckoff (918-669-7107). Submitted On: Apr 28 2012

1-0	Evaluation **Concurred** Text has been revised to provide a clearer discussion of the design flow range for the fishway operation and to be more internally consistent. Discussion consolidated in Sect. 1.6. Submitted By: Sean Milligan ((509) 527-7535) Submitted On: Aug 23 2012
1-1	Backcheck Recommendation **Close Comment** The report revisions address the comment. Submitted By: Russell Wyckoff (918-669-7107) Submitted On: Sep 06 2012
	Current Comment Status: **Comment Closed**

4579809	Hydraulics	Hydrology and Hydraulics	4-5	n/a

Comment Classification: N/A
(Document Reference: FREA Bennington ATR document)
REVIEW CONCERN: Both discharges of 327 cfs and 400 cfs are noted as corresponding to the flow exceeded only 5% of the time. These should be verified. Also, recommend noting the period of record used for determining the flow exceedance since the reference to significant events only went through the year 2000. I suggest updating the flow analysis to the current year as significant change could occur for this 12 year period. BASIS FOR THE CONCERN: It looks like the flow exceedance curve for the project needs to be updated. This is needed for determining the duration of the critical flow and should also include the additional years of data through 2012. SIGNIFICANCE OF THE CONCERN: The flow values noted seem to be contradictive, so verify the data. ACTION NEEDED TO RESOLVE THE CONCERN: Update the flow analysis with current year data.

Submitted By: Russell Wyckoff (918-669-7107). Submitted On: Apr 28 2012

1-0	Evaluation **Concurred** Text has been revised to provide a clearer discussion of the design flow range for the fishway operation and to be more internally consistent. Discussion consolidated in Sect. 1.6. Submitted By: Sean Milligan ((509) 527-7535) Submitted On: Aug 23 2012
1-1	Backcheck Recommendation **Close Comment** The report revisions address the comment. Submitted By: Russell Wyckoff (918-669-7107) Submitted On: Sep 06 2012

	Current Comment Status: **Comment Closed**

4579810	Hydraulics	paragraph m	9-2	n/a

Comment Classification: N/A
(Document Reference: FREA Bennington ATR document)
REVIEW CONCERN: Provide discussion on impacts and concerns with spillway modifications and operational impacts that may effect the 100year floodplain. Need to verify impacts, if any, to the regulatory floodplain to be in compliance with FEMA and state and local floodplain regulations BASIS FOR THE CONCERN: Alternatives that change the spillway size and configuration could impact downstream discharges. Need to document any changes to the FEMA floodplain. SIGNIFICANCE OF THE CONCERN: Any impacts on the FEMA floodplain should be identified and issues resolved. ACTION NEEDED TO RESOLVE THE CONCERN: Verify the FEMA floodplains for all viable alternatives and present in the report.

Submitted By: Russell Wyckoff (918-669-7107). Submitted On: Apr 28 2012

1-0	Evaluation **Concurred** One of the project constraints is to retain the existing flood control capacity of Bennington Lake Diversion Dam. All of the alternatives meet this constraint, including the recommended alternative. By meeting this constraint, the project does not change or impact the FEMA floodplain. No changes were made to the report for this comment. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 20 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Russell Wyckoff (918-669-7107) Submitted On: Jun 21 2012
	Current Comment Status: **Comment Closed**

4582800	General	n/a'	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: There is no Geotechnical Appendix. BASIS FOR THE CONCERN: Although it was explained in the Design Appendix that the soils are known from previous construction (and this may be acceptable), it would be helpful to include this information as a separate appendix. SIGNIFICANCE OF THE CONCERN: Low. ACTION NEEDED TO RESOLVE THE CONCERN: This is an idea for the project development team to consider - just answer in Dr. Checks and I'll close the comment.

Submitted By: Mark Fredricks (5013245104). Submitted On: May 01 2012

1-0	Evaluation **Concurred** Since the majority of the earthwork is cutting thru an existing Corps constructed levee, a geotechnical report was deemed unnecessary. There are preconstruction photos indicating there should not be any rock obstruction that would create a differing site condition. The rest is a small amount of earthwork to create a channel in the forebay to connect to the existing channel where there is very low risk of a rock outcropping in the floodplain. No changes to the report were made to address this comment. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Mark Fredricks (5013245104) Submitted On: Jun 22 2012
	Current Comment Status: **Comment Closed**

4582809	General	n/a'	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: The Option 1B was detailed in the Design Appendix. The other options were not included other than a Design Narrative in the review folder. Although the method of design was clearly provided, the calculations and quantities are only clear for Option 1B. BASIS FOR THE CONCERN: The cost estimate is apparently using the values for the quantities of all alternatives. However, only Option 1B can be quantified with the information given. SIGNIFICANCE OF THE CONCERN: Low to Medium. If there is an error, this could affect the price. However, the cost difference is so great between 1B and the others that this would have to be a fairly major error over several line items. ACTION NEEDED TO RESOLVE THE CONCERN: Explain in Projnet.

Submitted By: Mark Fredricks (5013245104). Submitted On: May 01 2012

1-0	Evaluation **Concurred** Jim Sentz of MVP performed the cost review. He was provided with the details of each of the feas alternatives (section 3.7). The recommended plan gets an aditional cost review to fine tune the final cost presented with the recommended alternative (section 8), which then makes it different than the others. Jim's review and comments would be making sure the feas alternatives are of comparable detail and completeness. It is unlikely that there is an error of enough magnitude that would switch the recommended alternative to one of the others. No changes to the report were made to address this comment. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Mark Fredricks (5013245104) Submitted On: Jun 22 2012
	Current Comment Status: **Comment Closed**

4582814	General	n/a'	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: There is no H&H Appendix. BASIS FOR THE CONCERN: Although mentioned in the Design Analysis (and demonstrated to some extent), the hydraulic characteristics may be more clearly explained in one location. SIGNIFICANCE OF THE CONCERN: Low. ACTION NEEDED TO RESOLVE THE CONCERN: This is for the project development to consider - just note in Projnet, and I'll close the comment.

Submitted By: Mark Fredricks (5013245104). Submitted On: May 01 2012

1-0	Evaluation **Check and Resolve** We believe enough H&H information is availble within the report and a separate appendix is not necessary for this project. Submitted By: Karen Kelly (509 527 7248) Submitted On: Aug 31 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Mark Fredricks (5013245104) Submitted On: Sep 21 2012
	Current Comment Status: **Comment Closed**

4582910	General	n/a'	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: Grammatical, format, and syntax errors. BASIS FOR THE CONCERN: Detailed Project Report and Environmental Assessment: • Section 1.4, Page 1-2, last two sentences: Is this federal or state legislation? Please clarify. • Section 1.5, Page 1-4, 2nd paragraph, 2nd sentence: Add "for" between "exists" and "Bull Trout". • Section 1.5, Page 1-5, 3nd paragraph, #4: Add "y" to "cloud". • Section 3.3, Page 3-3, 4th paragraph: Change "simulations" to "simulated". • Section 3.4.5, Page 3-7, 1st paragraph, 2nd to last sentence: Add "h" to "dept". • Section 3.5.2.2, Page 14, 2nd paragraph: Revise the sentence syntax for "...were raised concerning the difficulty of temporarily diverting to fish passage could be maintained during construction" to read better. • Table 3-9, Page 3-36: Is the $0.50 really necessary for Alt. 1B? Appendix D: • The page numbering is misleading (using "E series" for Appendix D and then an "A series" for the Annex within the Appendix). The page numbering should be such that if someone were to drop an unbound copy, they could intuitively reassemble it. • Sheet A-11, 1st Paragraph under Geotechnical Design: Change "area" to "are". • Sheet A-11, 2nd Paragraph under Geotechnical Design: Reverse order of "surface water" to "water surface". • Sheet A-11, 4th Paragraph under Geotechnical Design: Change "construction" to "constructed". SIGNIFICANCE OF THE CONCERN: Low to Medium - small errors add up. ACTION NEEDED TO RESOLVE THE CONCERN: Correct in document.

Submitted By: Mark Fredricks (5013245104). Submitted On: May 01 2012

1-0	Evaluation **Concurred** All suggested changes were made. Thank you for catching them. Submitted By: Karen Kelly (509 527 7248) Submitted On: Jun 13 2012

1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Mark Fredricks (5013245104) Submitted On: Sep 21 2012
	Current Comment Status: **Comment Closed**

4583461	Cultural Resources	n/a'	n/a	n/a

Comment Classification: N/A
REVIEW CONCERN: Existing conditions for CR in and around project area needs to be expanded to include existing and potential cultural resources and historic properties. A summary of work done to date showing reasonable and defendable efforts for identification, including contacting public and Tribal entities for input in accordance with 36CFR800, should be included. Properties identified as eligible for the NRHP should have a discussion of which Criteria they are being considered eligible under and why, and as Determination of Eligibility should be done in consultation with SHPO, a summary of consultation undertaken to date should be included. Impacts section should discuss how the direct, indirect, and cumulative impacts of the project will affect the cultural resources identified in the project area (including potentially buried resources, etc). These effects will need to be discussed in relation to how they impact the elements that make the resource a significant 'historic property' under the NHPA, and if the effects are adverse, how they will be addressed. This must be done in consultation with the SHPO and other applicable entities such as Tribes - the Section 106 process must be completed prior to signing the FONSI. Should it not be possible to complete this process prior to signing the FONSI (which is often the case), an MOA or phased PA must be implemented and executed to ensure compliance with the NHPA prior to signing a Finding of No Significant Impact. BASIS FOR THE CONCERN: NHPA / 36CFR800 SIGNIFICANCE OF THE CONCERN: Failure to follow the Section 106 process could cause the project to be out of compliance with the NHPA. ACTION NEEDED TO RESOLVE THE CONCERN: Revise sections as discussed above. Complete MOA or PA, as necessary, prior to signing FONSI to ensure compliance with NHPA.

Submitted By: Michelle Horn (918-669-7642). Submitted On: May 01 2012

1-0	Evaluation **Concurred** The information in the attachment has been added to the report. Submitted By: Karen Kelly (509 527 7248) Submitted On: Sep 19 2012 (Attachment: MCP_Cultural_resources_specialist_report.docx)
1-1	Backcheck Recommendation **Close Comment** Based on the attached document and discussions with Erin in WallaWalla, I believe the concerns I had have been addressed. I have been informed that the MOA to address the impacts to the NRHP eligible project is being worked out with the SHPO, however, it will be executed prior to signing the FONSI to ensure Section 106 compliance. Submitted By: Michelle Horn (918-669-7642) Submitted On: Sep 21 2012
	Current Comment Status: **Comment Closed**

4595232	Planning - Plan Formulation	n/a'	n/a	n/a

Comment Classification: N/A
The Review Concern: Page 1-7, second bullet, discusses conceptual project modifications to the Mill Creek Diversion Dam for passage of the SPF re-evaluation study. Page 2-10, 8th bullet, shows an opportunity to increase capacity of dam to pass the SPF (a new fish ladder could serve a dual purpose by increasing the spill length at Bennington Lake Diversion Dam, thus enabling the dam to meet or/exceed the SPF passing ability). However, there is not a follow-on discussion on whether or not this opportunity was pursued further in the formulation of alternative 1B. The Basis of the Concern: Potential need for additional information The Significance of the Concern: Not Significant The Probable Specific Action Needed to Resolve the Concern: If appropriate, consider adding a brief discussion to close the loop.

Submitted By: Gene Lilly (918-669-7196). Submitted On: May 07 2012

1-0	Evaluation **Concurred** We are planning to identify it as an "incidental benefit." It has not yet been decided which is the best way to provide the required additional capability to meet the SPF event. Section 8.1 will add the following text "An incidental benefit of the recommended plan would be to design the bypass channel to overtop during high flow events to, in effect, lengthen the spillway, with an elevation at or above the current spillway elevation, but below the adjacent levee elevation. Since there are other options to meeting the SPF shortfall, this feature will be considered during the design phase, as required."

	Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 20 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Gene Lilly (918-669-7196) Submitted On: Sep 07 2012
	Current Comment Status: **Comment Closed**

4595236	Planning - Plan Formulation	n/a'	n/a	n/a

Comment Classification: N/A
The Review Concern: Although the report, at various locations, addresses the completeness, effectiveness, efficiency, and acceptability planning criteria, it may be helpful to include a concise planning criteria summary associated with the final array of cost effective alternatives. The Basis for the Concern: Consolidated summary information on planning criteria for the final array of cost effective alternatives could make it easier for readers to assimilate the thought process for identifying the recommended plan. The Significance of the Concern Not Significant The Probable Specific Action Needed to Resolve the Concern: If appropriate, consider adding a planning criteria summary associated with the final array of cost effective alternatives in the vicinity of Section 3.7 of the report. If helpful, attached is an example fyi.

(Attachment: Example_Summary_Discussion_of_Planning_Criteria.docx)

Submitted By: Gene Lilly (918-669-7196). Submitted On: May 07 2012

1-0	Evaluation **Concurred** Redone as suggested in Table 3-10 Submitted By: Karen Kelly (509 527 7248) Submitted On: Aug 31 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Gene Lilly (918-669-7196) Submitted On: Sep 07 2012
	Current Comment Status: **Comment Closed**

4595239	Planning - Plan Formulation	n/a'	n/a	n/a

Comment Classification: N/A
The Review Concern: The report, Section 3.8, does not show a total cost estimate for the recommended plan 1B. The Basis for the Concern: A USACE – WDFW mutual understanding of total cost would be appropriate at this point in the process. The Significance of the Concern: Not Significant The Probable Specific Action Needed to Resolve the Concern: Consider adding a summary of Total Project Cost, along with OMRR&R to Section 3.8.

Submitted By: Gene Lilly (918-669-7196). Submitted On: May 07 2012

1-0	Evaluation **Concurred** The Corps and Sponsor costs for the recommended plan 1B are shown in Section 8. The O&M estimated cost for the recommended plan is in 8.4. No changes to the report were made to address this comment. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Open Comment** Section 3.6.1, page 3-24, Operation and Maintenance (O&M) Costs bullet shows the following: The cost for O&M for Alternatives 2 and 3 would be about $10,000 annually, in 2011 dollars. Costs for the two ladder alternatives (Alternatives 1 and 4) would likely be somewhat higher ($5,000 or more annually)." This discusssion may indicate that O&M would be $15k for alternative 1B. Section 8.4 shows $10k. Either a change in the report in Section 3 and/or Section 8 may be needed. Submitted By: Gene Lilly (918-669-7196) Submitted On: Jun 14 2012
1-2	Backcheck Recommendation **Open Comment** The O and M costs are revised. Section 3.6.1 page 3-24 Operation and Maintenance (O&M) Costs. The cost for O&M for Alternatives 1 and 3 and the no action alternative would be about $10,000 annually, in 2011 dollars. Costs for Alternatives 2 and 4 (alternatives that do not retain a forebay) would likely be somewhat higher ($15,000 annually), due to pump

	maintenance and power costs. Page 8-2 8.4 Operation and Maintenance Because the project is part of an existing Corps-managed project, O&M would normally be performed by the Corps. Under the Continuing Authorities Program, however, it is the responsibility of the sponsor to provide O&M. In order for the Corps to perform routine O&M, the sponsor would be required to provide approximately $10,000 in cash each year for routine O&M, unless the Sponsor is successful in their pursuit of legislative changes to relieve this responsibility. Submitted By: Stan Heller (509-527-7258) Submitted On: Sep 04 2012
1-3	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Gene Lilly (918-669-7196) Submitted On: Sep 07 2012
	Current Comment Status: **Comment Closed**

4595243	Planning - Plan Formulation	n/a'	n/a	n/a

Comment Classification: N/A
The Review Concern: Section 3.3 Design Criteria, page 3-4, 1st bullet, shows: "While not absolutely necessary, this is highly desirable and may influence the alternative selected." The Basis for the Concern: Potential information discrepancy, potential need for clarification The Significance of the Concern: Not Significant The Probable Specific Action Needed to Resolve the Concern: In Section 3.3, if appropriate, consider making a stronger case for fish counting. For instance, it is necessary to assure the project is functioning as designed and would be significantly more accurate and effective than the camera methodology currently being used. The Corps would benefit by assuring issues associated with the BiOp are addressed, etc. The CE/IA wouldn't change, i.e., a fish counting feature would be needed for any of the alternatives.

Submitted By: Gene Lilly (918-669-7196). Submitted On: May 07 2012

1-0	Evaluation **Concurred** The agencies made it clear that a fish counting station was not a required part of the project, because they did not want it to drive the alternative selection/decision. A fish counting station could be located elsewhere (downstream), if needed. It has not been determined if fish counting will or will not be required to monitor performance of the fish passage. They presume that if the ladder is designed to their standards, that the fish will be able to pass, if they reach the dam. Since Alt 1B lends itself to fish counting, it will be easy to accomodate a fish counting requirement, if deemed necessary later, and would be more cost effective at the dam. But again, the agencies did not want the fish counting to drive the decision, so we did not list it as a requirement for this project. No changes were made to the report to address this comment. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Open Comment** The response above says that since Alt 1B lends itself to fish counting, it will be easy to accomodate a fish counting requirement, if deemed necessary later, and would be more cost effective at the dam. Section 3.8, first paragraph, shows that the fish counting station is included in the Recommended Plan. It's not clear if the fish counting station will be considered in the future or if it is included in the Recommended Plan. A brief clarification or additional information would be helpful. Submitted By: Gene Lilly (918-669-7196) Submitted On: Jun 14 2012
1-2	Backcheck Recommendation **Open Comment** Table 8.1 shows Fish Counting Station included in the TPC as a Betterment – 100% Sponsor Funded. Section 3.8: A fish counting station, as well as the site for a trapping facility, is included in the design as well. However, a fish counting station and/or trapping facility would only be constructed through 100% funding by the Sponsor as betterment. Submitted By: Stan Heller (509-527-7258) Submitted On: Sep 04 2012
1-3	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Gene Lilly (918-669-7196) Submitted On: Sep 07 2012
	Current Comment Status: **Comment Closed**

4595262	Planning - Plan Formulation	n/a'	n/a	n/a

Comment Classification: N/A
The Review Concern: Page 3-23, bullets 3 and 4, show fish counting and trapping would not likely be built at the present time. Section 3.8, Recommended Plan, page 3-37, shows that the design includes a fish counting station and trap-and-haul facility that is included in the design. However, the trap-and-haul facility would only be constructed through 100% funding by the Sponsor as betterment. The Basis for the Concern: Potential information discrepancy, need for clarification The Significance of the Concern: Not Significant The Probable Specific Action Needed to Resolve the Concern: Clarification is potentially needed regarding whether or not the fish counting station is a component of the Recommended Plan as a betterment. If it is not betterment, additional supporting information may be needed in Section 3.3 (see previous comment).

Submitted By: Gene Lilly (918-669-7196). Submitted On: May 07 2012

1-0	Evaluation **Concurred** Section 3.8, Recommended Plan, page 3-37 will be revised to state "Provision for a site for a fish counting station, as well as a trap and haul facility, is included in the design. However, both features would only be constructed through 100% funding by the Sponsor as a betterment, and is not included in the project cost. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 20 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Gene Lilly (918-669-7196) Submitted On: Sep 07 2012
	Current Comment Status: **Comment Closed**

4595285	Planning - Plan Formulation	n/a'	n/a	n/a

Comment Classification: N/A
The Review Concerns: 1. Figure 3-6, page 3.35 shows an output of about 85 for Alternative 1b. It is not clear how this number relates to scoring shown in Table 3-7 (similar comment for Alternatives 2 and 4). 2. The figure shows total project cost although average annual costs are used in the analysis. 3. Figure 3-6 Footnote 2 shows fish counting station cost not included The Basis for the Concerns: Potential need for clarification The Significance of the Concerns: Not Significant The Probable Specific Actions Needed to Resolve the Concerns: 1. If appropriate, consider brief explanation regarding differences between Figure 3-6 and scoring shown in Table 3-7. 2. Associated with Figure 3-6, a footnote indicating that CEICA model outputs show total project cost as opposed to annual cost may be helpful. 3. The total project cost for Alternative 1b, $5,566,274, possibly includes the fish counting station – refer to Appendix cost estimate showing $92.7k line item for fish counting station. If so, consider using $5,566,274 - $92.7 for Alternative 1b cost, annualized, in the CEICA analysis.

Submitted By: Gene Lilly (918-669-7196). Submitted On: May 07 2012

1-0	Evaluation **Concurred** Appears that an earlier version of the CEICA analysis figure made it into the report. Figure 3-6 will be revised to align with the outputs of Table 3-7 and the alternative costs of Table 3-8. The differences will not affect the recommended plan. The fish counting station should not be included in the base cost, and will be reduced. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 20 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: Gene Lilly (918-669-7196) Submitted On: Sep 07 2012
	Current Comment Status: **Comment Closed**

4601865	Cost Engineering	n/a'	n/a	n/a

Comment Classification: N/A
Review Concern: Alt. 1 B and Alt. 1B revised estimates have electrical work that is assigned to the prime contractor and no electrical sub is used. All other alternatives utilize an electrical sub contractor. MII documentation notes and cost write-up indicate an electrical sub will be used. Basis for the concern: Estimate assumptions are not the same and selected alternative does not include all the anticipated costs based on the proposed subcontracting plan. Action

needed to resolve concern: Revise estimates Alt 1B and Alt1B revised so the electrical subcontractor is assigned to the electrical work.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Changed electrical work to electri sub Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 18 2012
1-1	Backcheck Recommendation **Close Comment** Change has been made. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 12 2012
	Current Comment Status: **Comment Closed**

4601867	Cost Engineering	n/a'	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
Review Concern: The Prime Contractor markups include a bond for both the primes work and the sub work. The sub-contractors are also assigned bond for their work. Basis for Concern: This results in a double counting of bond for the work accomplished by subcontractors, slighty increasing the overall project cost. Since this was applied to all estimates it does not affect the alternative selection. Action needed to resolve concern: Remove double counting of bond in the selected alternative estimate that will be used to determine the total project cost for the feasibility study.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012
Revised May 10 2012.

1-0	Evaluation **Concurred** Bond on subs removed Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 18 2012
1-1	Backcheck Recommendation **Close Comment** Change has been made. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 12 2012
	Current Comment Status: **Comment Closed**

4601870	Cost Engineering	n/a'	n/a	n/a

Comment Classification: N/A
Review Concern: MII Estimate-Contractor Tab, the electrical and landscape sub contractors have payroll tax and insurance as a state average instead of using Washington payroll tax and insurance. Basis for the Concern: This does not affect the alternatives comparison since it was applied the same way for all, but could affect the total project cost if the rates differ. Action needed to resolve the concern: Select the Washington State payroll tax and insurance factors for the selected alternative in computing the Total Project Cost.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Changed to WA and contractor class to electrical & for the landscaping to earthwork as there is no landscaping choice. Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 18 2012
1-1	Backcheck Recommendation **Close Comment** Change has been made - all use Washington rates. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 12 2012
	Current Comment Status: **Comment Closed**

4601872	Cost Engineering	n/a'	n/a	n/a

Comment Classification: N/A
Review Concern: The DPR/EA (page 3-24) report discusses optional fish counting stations and fish traps, but states that these are not included in the Alternative estimates, which is OK if they are comparable in cost for each alternative. If these are to be included in the project however, they must be in the selected alternative estimate used

to develop the total project cost. (Alt. 1B revised does include some costs for a fish counting station). Basis for the concern: If these are going to be project features they need to be included in the selected alternative estimate that is used to determine total project cost. Action to resolve the concern. Include fish trap costs in selected alternative estimate used in computing the total project cost and insure the fish counting station is adequately accounted forin the estimate.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012
Revised May 10 2012.

1-0	Evaluation **Concurred** $92K was included in the TPC for fish counting station (nothing for fish trap). Since the fish counting station is considered a betterment, it will be identified separately in the Project cost summary. Submitted By: Stan Heller (509-527-7258) Submitted On: Aug 20 2012
1-1	Backcheck Recommendation **Close Comment** Fish counting station is included in the costs. The fish trp is not. This is not currently planned to be pursued and if it is will be a 100% local sponsor elected betterment. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 25 2012
	Current Comment Status: **Comment Closed**

4602446	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: DPR/EA - page 3-24, Operation and Maintenance Costs – This paragraph is confusing – I believe the intent is annual O&M costs for Alternatives 2 and 4 is $10,000 per year each and Annual O&M for Alternatives 1 and 3 is $15,000 per year each. BASIS FOR CONCERN: Not stating actual O&M cost for alternatives 1 and 3 could lead to misunderstanding of actual O&M cost. ACTION NEEDED TO RESOLVE CONCERN: Reword bulletted paragraph so actual annual O&M cost for alternatives 1 and 3 are stated.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Bulleted paragraph will be reworded to: "The costs for O&M for Alternatives 1B and 3 would be about $10,000 annually, in 2011 dollars. Costs for the two alternatives that do not maintain the forebay (Alternatives 2 and 4) would likely be somewhat higher ($5,000 or more annually for electricity pumping) at about $5,000 annually. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 20 2012
1-1	Backcheck Recommendation **Close Comment** Verbage has been revised as follows: • Operation and Maintenance (O&M) Costs. The cost for O&M for Alternatives 1 and 3 and the no action alternative would be about $10,000 annually, in 2011 dollars. Costs for Alternatives 2 and 4 (alternatives that do not retain a forebay) would likely be somewhat higher ($15,000 annually), due to pump maintenance and power costs. This eliminates the confusion. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604549	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: The Table 3-8 Alternative Costs (Page 3-35) should be revised and Table 3-9 Federal and Sponsor Cost Shares, by Alternative (page 3-36) should not be included in the report. The tables, as titled now can misrepresent the actual costs of the project. BASIS FOR THE CONCERN: As they are the tables may lead to a misunderstanding of costs. Table 3-8 Column headings use "Project Cost" which indicates all costs are included, and then footnotes state items that are not included in the costs such as specific stand alone features, PED and CM. Table 3-9 provides cost share distribution that does not include all project features which is misleading. The alternatives have not been developed enough to provide a breakout until all anticipated costs are captured. The cost share should only be provided for the selected alternative's estimate that includes all project costs. ACTION NEEDED TO RESOLVE CONCERN: Appropriately re-title Table 3-8 Column Headings to something such as Contract Cost w/o stand alone Features". Table 3-9 should only include the selected alternative and be based on an estimate that includes all project costs (E&D, CM, Construction (all features), Real Estate and escalation to the fully funded project costs. Cost shares of other alternatives should not be presented since this was not utilized in alternative selection. If

they are mentioned it should only be that the Federal cost share for all other alternatives is capped at the$5 million and the local sponsor would be responsible for all other costs.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Column headings will be changed to Contract Cost. The total project cost for the recommended alternative is in section 8. Amounts will be rounded to the nearest $1K. We believe it is important to show the cost share for the Contract Cost because it illustrates the dramatic affect that the $5M fed limit imposes, and ultimately is driving the sponsor's choice in best buys. A footnote will be added to table 3.9 that reads "The sponsor would bear the entire cost of Planning, Design and Construction oversight for Alternatives 2, 3 & 4, due to the $5M fed funds project limit. Alternative 1 would share these additional costs at at 65% fed/ 35% sponsor." Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 20 2012
1-1	Backcheck Recommendation **Open Comment** Please see Attched file with proposed verbage comments refinements to avoid confusion with cost terms. Submitted By: James Sentz (651-290-5625) Submitted On: Oct 01 2012 (Attachment: FREA-ATR-Responses_10-01-2012_Sentz.docx)
1-2	Backcheck Recommendation **Close Comment** Comment closed per email acceptance of changes identified in attached file by Stan Heller, PM. Submitted By: James Sentz (651-290-5625) Submitted On: Oct 01 2012
	Current Comment Status: **Comment Closed**

4604557	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: DPR/EA pages 3-36 and 3-37, Recommended Plan: "While the Corps does, in fact, recommend Alternative 1B, the option remains open for Alternative 2 to become the recommended plan if the sponsor indicates that additional funding is available." When would this be done? Only one recommended plan can go forward. BASIS OF THE CONCERN: The report must identify one alternative to go forward for approval. If something other than the low cost alternative is recommended additional cost estimating would be required to adequately capture all project costs and determine new cost share requirements. Sponsor needs to commit to a single plan during feasibility or schedule will be in jeopardy increasing costs. Design costs would increase if a delay in the decision point occurs. ACTION TO RESOLVE CONCERN: Final decision needs to be made on the selected alternative during feasibility. If alternative other than Alternative 1B is selected as the recommended plan, the estimate would need to be updated to include all projects costs, including stand alone features, and the cost share splits recalculated based on guidance for alternative 1B (NED plan) and the $5 million Federal cost share cap.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** The recommended plan is found in Section 8; Alt 1B. During the report review, should additional funds be identified that would enable the sponsor to purchase more benefits (alt 2), then a new revised estimate would be required/performed for the new recommended plan. While unlikely, we did not want to close the door, knowing that the agencies and sponsor would like to construct Alt 2, but is currently out of their financial reach. It is unlikely that the recommended alternative will change. No changes to the report were made to address this comment. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 13 2012
1-1	Backcheck Recommendation **Close Comment** Alternative 1B is the selected alternative - Should funds become available and the alternatives revisited a new cost certification would be required for the selected plan. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604562	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**

REVIEW CONCERN: Selected Alternative cost will change based on other comments. Table 8-1 and 8-2 in the DPR/EA will need to be updated/reviewed to insure total project costs are correctly captured after the estimate is revised. BASIS OF THE CONCERN: Total project costs need to be consistent between estimate and report. ACTION TO RESOLVE CONCERN: Update/review tables after estimate changes have been accomplished to insure consistency between report and selected alternative estimate.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Tables 8-1 and 8-2 are adjusted based on revised cost for recommended alternative . Submitted By: Stan Heller (509-527-7258) Submitted On: Aug 20 2012
1-1	Backcheck Recommendation **Open Comment** See email for discussion to close out comments. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 26 2012
1-2	Backcheck Recommendation **Close Comment** Closed per acceptance of changes identified in file attached to comment 4604549 backcheck. Changes acceptance by Stan Heller email on 10/1/2012. Submitted By: James Sentz (651-290-5625) Submitted On: Oct 01 2012
	Current Comment Status: **Comment Closed**

4604576	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
10. REVIEW CONCERN: DPR/EA Section 9 Recommendations – First paragraph – O&M cost reported as $10,000, conflicts with O&M reported costs on page 3-24. Also, the total project cost reported should be reviewed after estimate changes are made for consistency. It also seems strange that O&M will be higher for Alternative 1 than alternative 2 which includes pumping and pump maintenance. BASIS OF THE CONCERN: Inconsistency in report for annual anticipated O&M cost for selected alternative. ACTION TO RESOLVE CONCERN: Eliminate conflict in O&M cost reporting, review O&M cost assumptions and recheck TPCS for report consistency after estimate has been updated.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Section 3.6.1. Bulleted paragraph will be reworded to: "The costs for O&M for Alternatives 1B and 3 would be about $10,000 annually, in 2011 dollars. Costs for the two alternatives that do not maintain the forebay (Alternatives 2 and 4) would likely be somewhat higher ($5,000 or more annually for electricity pumping) at about $5,000 annually. Submitted By: Stan Heller (509-527-7258) Submitted On: Jun 20 2012
1-1	Backcheck Recommendation **Close Comment** Verbage has been changed to the following which agrees with section 9 O&M costs. • Operation and Maintenance (O&M) Costs. The cost for O&M for Alternatives 1 and 3 and the no action alternative would be about $10,000 annually, in 2011 dollars. Costs for Alternatives 2 and 4 (alternatives that do not retain a forebay) would likely be somewhat higher ($15,000 annually), due to pump maintenance and power costs. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604581	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: Conversion factors in the estimate for quantity calculations (hauling) typically assume sand/gravel. Is this consistent throughout project site? BASIS OF THE CONCERN: Swell factors for sand and gravel are low compared to other materials. If other materials are encountered haul costs could increase. ACTION TO RESOLVE CONCERN: Verify sand and gravel is prevalent in the work areas.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Unable to verify. It is possible other material is there. Increased swell for hauing to 25%

	Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 18 2012
1-1	Backcheck Recommendation **Close Comment** The estimator has revised the haul calculations and most swell factors. Upon review it appears that the earthwork is conservative with the assumptions used overall. A quick rework could reduce this number, however the change would be on the order of $16,000 which is about .3% of the estimate. Need to revise this item further is not required, although suggest using example earthwork computations froma Caterpillar Performance Handbook. These have easy to use tables that can quickly identify production rates for excavators. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 25 2012
	Current Comment Status: **Comment Closed**

4604584	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: The bike path quantity calculations indicate a conversion factor from cy to tons that appears low. I typically see 1.95 or 2 tons/cy used as a conversion factor from CY to tons. BASIS OF THE CONCERN: While this is an overall small cost in the project, the tons of asphalt required may be under estimated. ACTION TO RESOLVE CONCERN: Confirm quantity and conversion calculations – make change to selected alternative estimate if required.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** The quantity of asphalt is correct (510sy), but the folder quantity of 35.4tons is incorrect. Should be approx 70 tons. Changed the folder quantity, but kept the detail quantity the same. Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 18 2012
1-1	Backcheck Recommendation **Close Comment** Change above was made and is acceptable. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604586	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: Documentation was provided indicating DQC had been accomplished on the Alternative 1B estimate by Kevin Kuhar. It is unclear if similar reviews were made on the other alternative estimates. BASIS OF THE CONCERN: DQC should have been provided on all estimates to insure consistency of the Alternatives comparison. ACTION TO RESOLVE CONCERN: Provide documentation that DQC was accomplished for all alternative estimates.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Check and Resolve** No record of QC being performed on alternatives can be found. Submitted By: Kurt Friederich (509 527 7512) Submitted On: Aug 17 2012
1-1	Backcheck Recommendation **Close Comment** Review and cost difference of the alternatives appears reasonable for this effort based on review. Recommend a system be put in place to document DQC on future projects, especially when team members change several times. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 26 2012
	Current Comment Status: **Comment Closed**

4604588	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
14. REVIEW CONCERN: MII estimate for Alternative 1B does not include relocation of the Debris Barrier. Appendix D drawings indicate the debris barrier for Alternative 1B will be relocated. BASIS OF THE CONCERN: Project work is not included in estimate. This will somewhat affect total project cost, but not affect overall alternative selected since it

is a minor cost. ACTION TO RESOLVE CONCERN: Account for the relocation of the debris barrier in the Alternative 1B estimate.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Added relocation of barrier to estimate Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 25 2012
1-1	Backcheck Recommendation **Close Comment** Two days for a debris barrier removal crew has been added for this task. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604594	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: MII estimate for Alt. 1B, Concrete Work, Concrete Waste. Material Price for concrete is $80/cy. All other alternatives use $150/cy for concrete waste. BASIS OF THE CONCERN: Concrete waste unit price is not consistent among all alternatives and may not be reflected correctly in Alternative 1B estimate. ACTION TO RESOLVE CONCERN: Revise Alt1B to include $150/cy cost for delivered concrete. Alternative would be to possibly use the $230/cy which would include rebar waste also.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Changed to $150/cy Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 25 2012
1-1	Backcheck Recommendation **Close Comment** Change has been made to the 1B estimate. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604601	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: MII estimate, Alternative 1B. Environmental Protection includes silt fence. Based on the proximity will a floating silt curtain be required to protect adjacent water bodies at the inlet/outlet of project? BASIS OF THE CONCERN: Protection of the environment and associated costs. This should not affect alternative selection, but accumulated changes may affect Total project Cost for selected alternative. ACTION TO RESOLVE CONCERN: Determine the need for floating silt curtain and include in revised Alternative 1B estimate if necessary.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Added floating silt curtain along the riverside of the project. Submitted By: Kurt Friederich (509 527 7512) Submitted On: Jun 27 2012
1-1	Backcheck Recommendation **Close Comment** turbidity curtain added to the estimate. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604604	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: MII estimate, Site Preparation and Maintenance, Establish Haul Route – there is no gravel base included in constructing haul route, but there is in maintenance of haul route. BASIS OF THE CONCERN: It appears a gravel base for the initial haul route has not been included in the estimates. Should not affect alternative selection (applicable to all estimates) but accumulated effect of changes could affect overall project cost of selected alternative. ACTION TO RESOLVE CONCERN: Review and make adjustments to estimate if necessary.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Added gravel to haul route development Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 25 2012
1-1	Backcheck Recommendation **Close Comment** Material has been added to estimate. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604606	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: Alt. 1B MII estimate, Demolition – Concrete Wall – quantity assumption is for 20 ft high wall 2 feet thick. Does quantity account for footing? Also, for a concrete structure of this size I would anticipate a much larger hydraulic excavator and a FE loader to collect material during demolition accompanied by a much slower production rate. I would expect this to be highly reinforced and slow to demolish. Finally, conversion from CY to tons is 1.35 which seems very low for concrete. Won't concrete be roughly 1.95 tons/cy? BASIS OF THE CONCERN: It appears demolition costs could be underestimated for this item. ACTION TO RESOLVE CONCERN: Please review and adjust crew, production, and conversion factor to better represent the work. Please review disposal cost also – this could be high?

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Increased size of excavator and reduced production from 8cy/hr to 5cy/hr. There is an excavator instead of a FE loader in the load demo concrete. Changed conversion to 1.95tons/cy & reduced disposal fee to $26/ton based on current landfill rates. Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 25 2012
1-1	Backcheck Recommendation **Close Comment** Estimate has been adjusted per response. Unit price appears reasonable. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604607	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: Very Minor comment - Alt. 1B MII estimate, Demolition - Grills – Should be 3 each for grills. BASIS OF THE CONCERN: Insure all items accounted for in selected alternative. ACTION TO RESOLVE CONCERN: Make change to MII estimate for selected alternative if justified or note that total includes the demolition for all grills.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** changed quantity to 3. Kept cost the same. Submitted By: Kurt Friederich (509 527 7512) Submitted On: May 25 2012
1-1	Backcheck Recommendation **Close Comment** Closed without comment. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604611	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: Alternative 1B MII estimate – general comment – Please review hauling and insure that loading of the trucks has been included for all items that involve hauling. For clearing and grubbing it appears there is no equipment and operator to load the trucks. BASIS OF THE CONCERN: All work items may not be included in

estimate. ACTION TO RESOLVE CONCERN: Review MII Alt 1B estimate to insure loading of trucks is accounted for in all haul operations. Adjust estimate as required.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Loader & Operator added to all haul operations Submitted By: Kurt Friederich (509 527 7512) Submitted On: Jun 26 2012
1-1	Backcheck Recommendation **Close Comment** Spot check reveals loading has been added to many of the pertinent haul operations. Submitted By: James Sentz (651-290-5625) Submitted On: Sep 13 2012
	Current Comment Status: **Comment Closed**

4604614	Cost Engineering	n/a	n/a	n/a

Comment Classification: **For Official Use Only (FOUO)**
REVIEW CONCERN: There is a conflict between the notes and the number of trucks utilized for hauling in the Alt 1B estimate under Earthwork, Excavation, New Passage, Haul Material from Excavation of New Passage. The conflict is estimate uses 9 trucks for hauling, but note describes a one way haul distance of 20 miles (40 miles RT at an average speed of 40 MPH). With that long of a haul it will take many more trucks to match excavator production. Calculations on quantity spreadsheet indicate a 10 mile haul distance and 10 trucks would be required to match excavator production. Also, I did not see any costs associated with the disposal or final placement of material. I would anticipate contractor would need to grade, topsoil and seed the disposal/placement site or pay a fee for whoever was accepting the material unless it was for beneficial use associated with another project that could be utilized quickly. Same concern for forebay excavation. BASIS OF THE CONCERN: Work items may not be included or fully accounted for which would raise overall unit price of estimate. ACTION TO RESOLVE CONCERN: Verify haul distance and provide notes to document correct haul distance. Verify estimate and back-up calculations agree. Verify all costs related to final placement or disposal costs are included. Adjust estimate as required to reflect changes. Please review and note the same for the Forebay excavation. It appears 14 and 16 trucks are needed for those items based on a 10 mile RT in the quantity spreadsheet.

Submitted By: James Sentz (651-290-5625). Submitted On: May 10 2012

1-0	Evaluation **Concurred** Revised hauling assumptions for distance and number of trucks. Based on past projects, did not include any costs or work for disposal as usually the contractor can find a site such as a farm to dispose of the material at no cost. Submitted By: Kurt Friederich (509 527 7512) Submitted On: Jun 26 2012
1-1	Backcheck Recommendation **Close Comment** Estimator provided revised calculations and has adjusted the estimate accordingly. Reviewer noted that the there

Enclosure 2

COMPLETION AND CERTIFICATION STATEMENTS OF AGENCY TECHNICAL REVIEW

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Bennington Lake Diversion Dam Fish Passage, Walla Walla, Washington, Section 1135, (Project Modifications to Improve the Environment), Detailed Project Report and Environmental Assessment, April 2012, Walla Walla District. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed could have been more effective. The review report notes that all comments have been closed.

Digitally signed by MASNOR.MARC.L.1231275556
Date: 2012.10.02 10:40:07 -05'00'

Marc L. Masnor, P.E. Date
ATR Team Leader
CESWT

Date

Rebecca Weiss
Review Management Office
CENWD-PDD

Stan Heller PE, PMP Date
Project Manager
CENWW-PM-PD-PF

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows:

- None

Brian Miller
Chief, Engineering Division
CENWD

Date

Rebecca Kalamasz
Chief, Planning Division
CENWD

Date